

# MED TRON<sup>®</sup> AG



## PRODUCT CATALOGUE

VERSION EN 6.1 | APRIL 2024  
W20100

Contrast Media Injectors  
& Disposables for CT, MRI  
and Angiography

**MADE IN GERMANY**

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## ESSENTIAL FOR CONTRAST

### OUR DNA

Combining improved diagnostics, patient-friendliness and cost effectiveness is part of our DNA – which is why we have been providing our knowledge and innovative power to radiologists, medical experts and their patients for more than thirty years.

Thomas Alva Edison, the inventor of the light bulb, once said: "There's a way to do it better – find it", and we believe that this is the best way to ensure long-term quality. For us, this specifically means shaping and continuously improving the workflow of contrast media injection in a ground-breaking way. We develop contrast media injectors and related disposables that are increasingly easy, safe and quick to use.

### QUALITY & SAFETY

Our innovative injector systems enable us to create pioneering solutions that combine optimum support during imaging with safe and gentle contrast media injection for patients. By working closely with the users, we are able to continuously adapt our development and production processes to meet current and future requirements of radiologists in an open and creative way.

### MEDTRON ESSENTIALS

Innovations in technology meet outstanding service at Medtron. Our contrast media injectors are durable, reliable and precise. This is reflected in the name of our product generation: Accutron® comes from the English word "accuracy" and expresses the precision with which we work. We produce our "Made in Germany" injectors with maximum reliability and dedication, selling them worldwide supported by our strong partner network.

All of this makes our products, our service and our DNA what they are: **ESSENTIAL FOR CONTRAST.**

#### Certificates

MEDTRON AG is certified as compliant with

- DIN EN ISO 13485
- Annex II, Directive 93/42/EEC

## HISTORY

## OPPORTUNITIES AND THE SUCCESS WE HAVE MADE OUT OF THEM ...

### 2022

- Market launch of the Accutron® CT-D Vision with RIS/PACS connection and greater comfort, mobility and operating safety.
- 30 years of MEDTRON AG

### 2021

- Market launch of the Day Safe System - 24h-disposables

### 2019

- Expansion of the application spectrum for the Accutron® CT-D to include contrast enhanced mammography and diagnostics and the only injector with corresponding approval

### 2018

- Acquisition of a majority stake by AD-PART Beteiligungen Geschäftsführungs-AG, Dillingen

### 2013

- MEDTRON opens new production facility for disposables in Hermeskeil

### 2010

- Market launch of the Accutron® HP

### 2008

- Market launch of the Accutron® HP-D (the first and, at the time, only dual head injector for angiography)

### 2006

- Market launch of the new Accutron® series: Accutron® CT, Accutron® MR

### 2005

- Market launch of the CANopen Interface

### 2004

- Market launch of the Easy Loading Syringe (ELS)

### 2003

- Change of name to MEDTRON AG

### 2000

- Market launch of the CT injector Injektron CT2, the world's first dual head injector for computed tomography

### 1998

- Market launch of the MRI injector Injektron 82 MRI approved for tomographs up to 3 tesla

### 1996

- Market launch of the Angio/CT injector Injektron 82 HP, the first bifunctional high-pressure injector for angiography and computed tomography

### 1993

- Sales start of disposables

### 1992

- Founding of MEDTRON Medizinische Systeme GmbH: Aim: Developing, producing and selling medical devices for radiology, International Sales & Service,
- Development and market launch of the CT injector Injektron 82 CT, the first compact microprocessor-controlled injector

# COMPUTED TOMOGRAPHY

We develop contrast media injectors and related disposables for computed tomography. You can find our CT portfolio here.



## ACCUTRON® CT-D VISION

The Accutron® CT-D Vision is the next generation of MEDTRON AG's leading CT contrast media injector. The latest evolution of the Accutron® CT-D is characterised by enhanced usability and optimised integration into the radiology environment.

# 01



## ACCUTRON® CT

The Accutron® CT is a single head contrast media injector designed for computed tomography and based on the proven technology of the Accutron® injectors. Whether you are budget conscious or newly exploring the potential use of a contrast media injector in your CT department without having to miss out on essential comfort and safety features, then the Accutron® CT is your ideal companion.

# 02



## DISPOSABLES

Our in-house production of disposables for contrast media injectors allows us to ensure optimum quality and constant availability of our disposables. We continuously refine and adapt them to satisfy the latest customer requirements and market developments.

# 03

## ■ MODERN DESIGN

Modernised user interface on larger touch screens with a comprehensive overview of all parameters, improved readability and less eye fatigue

## ■ INTERFACE OPTION

Optional Injection Data Sharing interface for RIS/PACS connection

## ■ BETTER MOBILITY

Bigger rollers for better mobility in the medical environment



# Accutron® CT-D VISION

The Accutron® CT-D Vision is the latest development of our successful injector series for computed tomography. The improvements include:

- Larger touch screens with new user interface
- Simplified programming and complete tracking of all injection steps
- Data exchange between injector and digital radiology infrastructure

## CLINICAL GAINS

- Hygiene: All Accutron® injectors are made easy to clean, as they do not have any hidden sources of contamination such as inaccessible spaces or interiors. The risk of contamination is minimised.
- Diagnostics: The Accutron® CT-D Vision assists women's health during contrast-enhanced mammography.
- Control: Real-time pressure monitoring with automatic adjustment of the flow rate.
- Safety: The Pre-Inject function ensures vascular access before contrast media injection. The KVO function (KVO = Keep Vein Open) keeps veins open for longer examinations, especially if an injection is paused during the examination.

## OPERATIONAL GAINS

- Operation: Selecting various injection parameters from lists simplifies and speeds up the creation of injection profiles significantly. Displaying all injection parameters on a single page enables unrestricted and reliable monitoring of the injection.
- Tracking: The optional IDS interface (IDS = Injection Data Sharing) allows patient-related data to be shared between the injector and the Radiology Information System (RIS) on the one hand and the injector and the Picture Archiving and Communication System (PACS) on the other. This guarantees complete documentation on the injection parameters / injection report.
- Reliability: The intelligent battery management system (IBMS) displays the current state of charge of the batteries. It automatically switches to power supply mode as soon as the Accutron® CT-D Vision is connected to the mains via the mains supply.

## FINANCIAL GAINS

- Our comprehensive range of disposables for single use and multiple use for eight or 24 hours perfects the Accutron® CT-D Vision in terms of flexibility. This allows you to keep your running costs low and generate an optimum cost-benefit ratio.

01  
ACCUTRON®  
CT-D VISION



Effortless insertion and removal of Easy Loading Syringes (ELS)

Constant temperature of injection fluids

Larger touch screens with intuitive user interface

Injection control via the hand switch right by the patient

Intelligent battery management with charge level monitoring

Accutron® CT-D Vision  
Article Number CT8600

## PRODUCT SELECTION

ARTICLE	DESCRIPTION	ARTICLE NUMBER
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### MODELS

Accutron® CT-D Vision Battery Version	Mobile dual head injector on rollers with high-output battery	CT8600
Accutron® CT-D Vision Power Supply Version	Mobile dual head injector on rollers with mains supply	CT8621
Accutron® CT-D Vision Ceiling Version	Dual head injector on ceiling suspension with constant power supply	CT8610
Accutron® CT-D Vision Gantry Version	Injector mounted on the gantry with constant power supply, compatible with the following SOMATOM go CT scanners from Siemens Healthineers: SOMATOM go.Now, SOMATOM C.cite, SOMATOM X.ceed SOMATOM go.Up, SOMATOM go.All, SOMATOM go.Top.	CT8613

### EQUIPMENT (INCLUSIVE)

Remote Control (for all versions)	Touch screen, with Bluetooth connection, incl. mains supply, transmitter and antenna
Charger (for CT8600)	With mains supply function, with country-specific plug
Mains Supply (for CT8621, CT8610, CT8613)	With country-specific plug
Holder for Mains Supply (for CT8600, CT8621)	Foot holder on the injector for charger
Hand Switch with Coiled Cable (for all versions)	For starting and stopping injection
Cupholder and Bottle Holder (for all versions)	Holder on the injector, incl. cup
Instructions for Use (for all versions)	Detailed description on how to use the device, incl. service log book

### REQUIRED ACCESSORIES

Ceiling Suspension for Accutron® CT-D Vision Ceiling Version CT8610	Vertical articulation (+45°/-70°) and angle of rotation (360°)	
	Support arm system Valia S1 + various lengths of the ceiling tube:	
	100 cm	530209
	80 cm	530210
	60 cm	530211
40 cm	530212	

### OPTIONAL ACCESSORIES

Infusion Stands for CT8600 and CT8621	With cupholder and cup	490200
Pre-Filled Syringe Option	Enables the use of pre-filled syringes (e.g. Optiject), incl. ELS*adapter	490110

## PRODUCT SELECTION

ARTICLE	DESCRIPTION	ARTICLE NUMBER
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### IT NETWORK INTERFACES

IDS Software Option	Injection Data Sharing: DICOM-capable RIS/PACS interface	490151
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### OEM INTERFACES

CANopen Interface Class 4 Siemens	Compatible with go series, SOMATOM Pro.Pulse, Definition, Force, Drive, Confidence, X.cite, X.ceed, NAEOTOM Alpha	IP864
CANopen Interface Class 4 GE	Compatible with Optima CT860 Expert, Revolution ACE, Revolution Maxima, Revolution EVO, Revolution Frontier, Revolution Ascend	IF864B
CANopen Interface Class 4 Philips	Compatible with Insicive CT, CT5300	IF864B
SAS Interface Philips Type 1	Compatible with Brilliance CT / Vision	490390
SAS Interface Philips Type 2	Compatible with MX8000 CT / Vision	490391
SAS Interface Philips Type 3	Compatible with Incisive, MX16, Access CT / Vision	490407

## TECHNICAL DATA

#### INJECTION VOLUME

per head **max. 200 ml**  
1-200 mL, programmable  
in 1 mL increments

#### PHASES

**1 to 6** phases

#### INJECTION PRESSURE

**max. 21 bar**,  
5-21 bar,  
in 1 bar increments

#### FLOW RATE

**0.1 - 10 ml/s**,  
programmable in  
0.1 mL/s increments

#### INJECTION PROFILES

**80 profiles**,  
can be edited & stored by  
the user

#### INJECTION, PHASE & SCAN DELAY

**0 - 255 s**

#### FILLING SPEED

**1 - 5 ml/s**,  
programmable in  
1 mL/s increments

#### KEEP VEIN OPEN

**1 ml** every 2 minutes

Subject to technical alterations.

# 01

ACCUTRON®  
CT-D VISION

Accutron® CT-D VISION  
CEILING VERSION

Accutron® CT-D VISION  
GANTRY VERSION

Accutron® CT-D VISION  
POWER SUPPLY VERSION

Accutron® CT-D VISION  
BATTERY VERSION



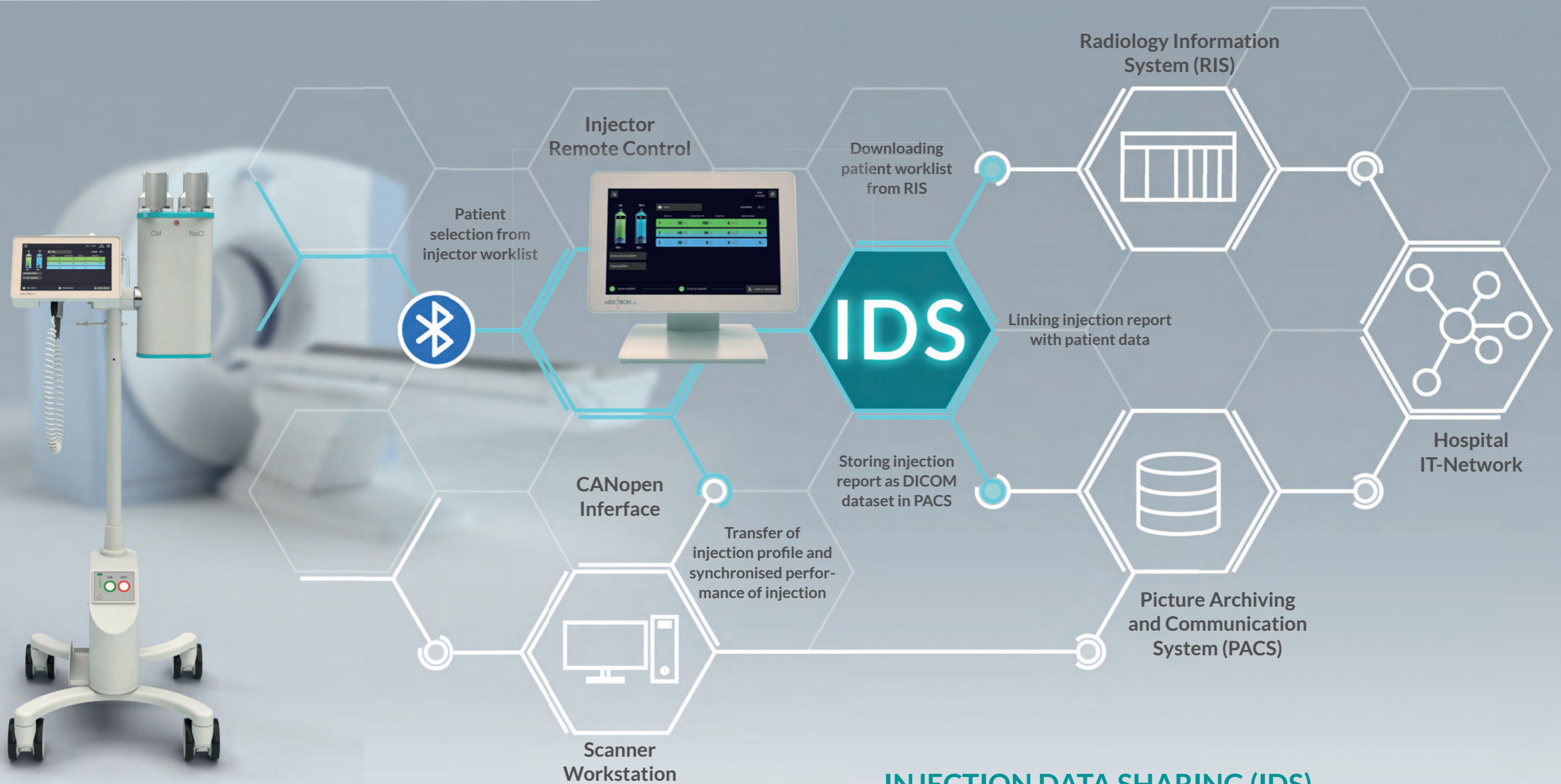
Touch screen remote control

CT

CT



# Injection Data Sharing – Functionality



## INJECTION DATA SHARING (IDS)

The new IDS (Injection Data Sharing) option links the contrast media injection report with the patient data in the Radiology Information System (RIS) and with the radiological image data in the Picture Archiving and Communication System (PACS).

## ■ SAFETY AND PRECISION

High precision and safety through real-time pressure monitoring

## ■ PATIENT COMFORT

Good viscosity of the contrast media due to heated syringe holders

## ■ IDEAL STARTER MODEL

Affordable to buy and economical to maintain



# Accutron® CT

The Accutron® CT as a single head injector is the ideal starter model from our Accutron® injector series. It is quick and easy to use but still has the same sophisticated technology as all Accutron® injectors. If you want to explore using a contrast media injector in computed tomography, the Accutron® CT is the right choice for you.

## CLINICAL GAINS

- Hygiene: All Accutron® injectors are made easy to clean, as they do not have any hidden sources of contamination such as inaccessible spaces or interiors. The risk of contamination is minimised.
- Control: Real-time pressure monitoring
- Comfort: Store up to 80 injection profiles in the integrated database and access them whenever you need them.

## OPERATIONAL GAINS

- Control: Showing the injection parameters on the display enables reliable monitoring of the injection. The injection can be paused and continued at any time during the examination.
- Flexibility: The Accutron® CT can also be equipped with pre-filled syringes in addition to our ELS\*200 mL.
- Endurance: The Accutron® CT is designed for permanent operation using the mains power supply.
- Mobility: With a total weight of 15 kg, the Accutron® CT can be effortlessly moved to the respective examination room.

## FINANCIAL GAINS

- The Accutron® CT is affordable to buy and economical to maintain, so it goes easy on your budget in both respects.
- Thanks to its efficient equipping with pre-filled syringes and the resulting high throughput, the Accutron® CT is particularly cost-effective.



Accutron® CT  
Article Number CT871

- Effortless insertion and removal of Easy Loading Syringes (ELS)
- Constant temperature of injection fluids
- Visual control of the injection parameters
- Injection control via the hand switch right by the patient
- Permanent operation via the mains supply

## PRODUCT SELECTION

ARTICLE	DESCRIPTION	ARTICLE NUMBER
<b>MODELS</b>		
Accutron® CT Power Supply Version	Mobile injector on rollers with mains supply	CT871
<b>EQUIPMENT (INCLUSIVE)</b>		
Hand Switch with Coiled Cable	For starting and stopping injection	
Mains Supply	With country-specific plug	
Cupholder and Bottle Holder	Holder on the injector, incl. cup	
<b>OPTIONAL ACCESSORIES</b>		
Remote Control	Touch screen, with Bluetooth connection, incl. mains supply, transmitter and antenna	FB875S
Infusion Stands	With cupholder and cup	490200
Pre-Filled Syringe Option	Enables the use of pre-filled syringes (e.g. Optiject), incl. ELS* adapter	490110

## TECHNICAL DATA

**INJECTION VOLUME**  
max. 200 ml

**PHASES**  
1 to 6 phases

**INJECTION PRESSURE**  
max. 21 bar,  
5-21 bar, programmable in  
1 bar increments

**FLOW RATE**  
0.1 - 10 ml/s,  
programmable in  
0.1 mL/s increments,  
optional selection of flow  
rate or phase duration

**PARTIAL INJECTION  
VOLUMEN**  
1 - 200 ml,  
programmable in 1 mL  
increments

**INJECTION PROFILES**  
80 profiles,  
can be edited & stored  
by the user

**INJECTION, PHASE &  
SCAN DELAY**  
0 - 255 s

**FILLING SPEED**  
1 - 5 ml/s,  
programmable in  
1 mL/s increments

Subject to technical alterations.



## Sets for Single Use for CT Injectors

### CT-SET ELS\*SH



317614-100  
for Accutron® CT

1 x ELS* 200 mL Syringe	316026-100
1 x Coiled Line 150 cm Tube System	318213-100
1 x SP 227 Vented Spike, Luer Lock	319095-100

Packing unit: 50 pieces/carton | 1,200 pieces/pallet

### CT-SET ELS\*DH



317629-100  
for Accutron® CT-D Vision

2 x ELS* 200 mL Syringe	316026-100
1 x Double Head Tube System	317101-100
2 x SP 227 Vented Spike, Luer Lock	319095-100

Packing unit: 20 pieces/carton | 480 pieces/pallet

## Sets for Single Use for CT Injectors with Integrated Drip Chamber

### CT2/MRI SET ELS\*



317625-000  
for Accutron® CT-D Vision

2 x ELS* 200 mL Syringe, QFT	316025-000
1 x MRS 222 MR Tube System	317100-000
1 x ES 224/150 Patient Line	318151-000

Packing unit: 20 pieces/carton | 600 pieces/pallet

### CT2/MRI SET ELS\* (S)



317627-000  
for Accutron® CT-D Vision

2 x ELS* 200 mL Syringe	316026-000
1 x MRS 222 MR Tube System	317100-000
1 x ES 224/150 Patient Line	318151-000

Packing unit: 20 pieces/carton | 600 pieces/pallet

## Syringes for Single Use

### ELS\* 200 ML QFT



316025-000

CM side	
Residual volume	1.5 mL
Filling volume	200 mL
NaCl side	
Residual volume	1.5 mL
Filling volume	200 mL

Packing unit: 50 pieces/carton | 1,500 pieces/pallet

### ELS\* 200 ML (S) SYRINGE



316026-000

CM side	
Residual volume	1.5 mL
Filling volume	200 mL
NaCl side	
Residual volume	1.5 mL
Filling volume	200 mL

Packing unit: 50 pieces/carton | 1,500 pieces/pallet

## Single Head Filling Tubes for Single Use

### SD 225 SUCTION TUBE WITH THREE-WAY STOP COCK AND SPIKE



319080-100

	ID	Length	Filling volume
Tube	2.7 mm	1,000 mm	5.7 mL
Spike	-	-	0.2 mL

Packing unit: 50 pieces/carton | 4,000 pieces/pallet

## Double Head Tube Systems with Filling Function for Single Use

### EK 223 TUBE SYSTEM WITH DRIP CHAMBER



317081-100

	ID	Length	Filling volume
Pressure side	2 mm	210 mm	0.7 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.2 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

### TUBE SYSTEM WITH SUCTION LINE AND DRIP CHAMBER



317083-100

for Accutron® CT-D Vision

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	60 mm	0.2 mL
<b>NaCl side</b>			
Pressure side	2 mm	320 mm	1.0 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.2 mL
<b>Common line</b>			
	1.5 mm	1,500 mm	2.7 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

## Double Head Tube Systems for Single Use with Filling Function

### MRS-222 MR TUBE SYSTEM



317100-100

for Accutron® CT-D Vision

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	120 mm	0.4 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.2 mL

	ID	Length	Filling volume
<b>NaCl side</b>			
Pressure side	2 mm	360 mm	1.1 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.1 mL

	ID	Length	Filling volume
<b>Common line</b>			
	1.5 mm	100 mm	0.2 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

### MRS-222 MR TUBE SYSTEM WITH INLINE DRIP CHAMBER



317099-100

for Accutron® CT-D Vision

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	120 mm	0.4 mL
Suction side	2.7 mm	1,040 mm	6.0 mL
Drip chamber	-	-	10 mL

	ID	Length	Filling volume
<b>NaCl side</b>			
Pressure side	2 mm	360 mm	1.1 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.2 mL

	ID	Length	Filling volume
<b>Common line</b>			
	1.5 mm	100 mm	0.2 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

### Y CONNECTOR WITH DOUBLE PERFUSION TUBE FOR DUAL HEAD INJECTOR



317112-100

for Accutron® CT-D Vision

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	120 mm	0.4 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.2 mL

	ID	Length	Filling volume
<b>NaCl side</b>			
Pressure side	2 mm	360 mm	1.1 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.2 mL

	ID	Length	Filling volume
<b>Common line</b>			
	1.5 mm	1,000 mm	1.8 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

## Double Head Tube Systems for Single Use

### DOUBLE HEAD TUBE SYSTEM



317101-100

for Accutron® CT-D Vision

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	60 mm	0.2 mL
<b>NaCl side</b>			
Pressure side	2 mm	300 mm	1.0 mL
<b>Common line</b>	1.5 mm	1,800 mm	3.2 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

### MR-ELS\* TUBE SYSTEM WITH VALVES



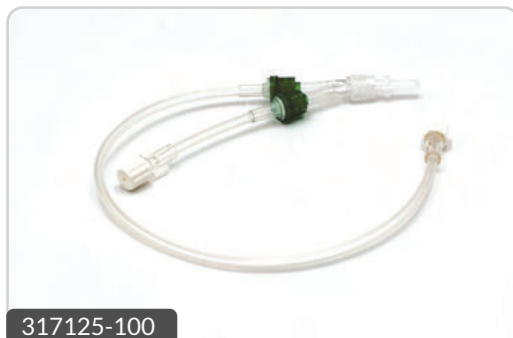
317104-000

for Accutron® CT-D Vision

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	1.5 mm	100 mm	0.2 mL
<b>NaCl side</b>			
Pressure side	1.5 mm	340 mm	0.6 mL
<b>Common line</b>	1.5 mm	1,850 mm	3.3 mL

Packing unit: 50 pieces/carton | 4,950 pieces/pallet

### MRS 225 MR TUBE SYSTEM



317125-100

for Accutron® CT-D Vision

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	60 mm	0.2 mL
<b>NaCl side</b>			
Pressure side	2 mm	320 mm	1 mL

Packing unit: 50 pieces/carton | 4,000 pieces/pallet

## Patient Lines with One Valve

### ES 224/25 PATIENTENSCHLAUCH MIT VENTIL



318020-100

	ID	Length	Filling volume
Line	1.5 mm	200 mm	0.4 mL

Packing unit: 100 pieces/carton | 8,000 pieces/pallet

### PATIENT LINE WITH VALVE



318152-100

MEDTRON recommends!

	ID	Length	Filling volume	Article no.
Line	1.5 mm	1,500 mm	2.7 mL	318152-100
Line	1.5 mm	2,000 mm	3.5 mL	318198-100
Line	1.5 mm	2,500 mm	4.4 mL	318251-100
Line	1.5 mm	3,000 mm	5.3 mL	318301-100

Packing unit: 200 pieces/carton | 11,200 pieces/pallet

### COILED LINE WITH VALVE



318214-000

	ID	Length	Filling volume
Line	1.7 mm	1,500 mm	3.2 mL

Packing unit: 50 pieces/carton | 5,850 pieces/pallet

### PATIENT LINE WITH VALVE



318253-000

	ID	Length	Filling volume
Line	1.5 mm	2,500 mm	4.4 mL

Packing unit: 50 pieces/carton | 5,850 pieces/pallet

## Patient Lines with Two Valves

### PATIENT LINE 150 CM WITH TERMINAL VALVES



	ID	Length	Filling volume
Line	1.5 mm	1,500 mm	2.7 mL

Packing unit: 200 pieces/carton | 11,200 pieces/pallet

### COILED LINE WITH TWO VALVES



	ID	Length	Filling volume
Line	1.5 mm	1,500 mm	2.7 mL

Packing unit: 50 pieces/carton | 5,850 pieces/pallet

## Patient Lines without Valves

### ES 224 PATIENTEN LINE



MEDTRON recommends!

	ID	Length	Filling volume	Article no.
ES 224/100	1.5 mm	1,000 mm	1.8 mL	318101-100
ES 224/150	1.5 mm	1,500 mm	2.7 mL	318151-100
ES 224/200	1.5 mm	2,000 mm	3.5 mL	318199-100

Packing unit: 200 pieces/carton | 11,200 pieces/pallet

### COILED LINE 150 CM



	ID	Length	Filling volume
Line	1.7 mm	1,500 mm	3.2 mL

Packing unit: 50 pieces/carton | 4,950 pieces/pallet

## Short Patient Lines for Intravenous Access

### ONE-WAY STOP COCK WITH 30 CM EXTENSION LINE, LUER LOCK



	ID	Length	Filling volume
Line	2 mm	300 mm	1.0 mL
One-way stop cock	-	-	0.2 mL

Packing unit: 100 pieces/carton | 5,600 pieces/pallet

### DW 229 PATIENT LINE WITH THREE-WAY STOP COCK



	ID	Length	Filling volume
Line	1.5 mm	100 mm	0.2 mL
One-way stop cock	-	-	0.3 mL

Packing unit: 100 pieces/carton | 8,000 pieces/pallet



## Accessories

### DW 226 THREE-WAY STOP COCK



319085-100

Filling volume	
Three-way stop cock	0.3 mL

Packing unit: 50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet

### VENTED SPIKE



314095-100

Filling volume	
<b>CM side</b>	
Spike	0.3 mL
<b>NaCl side</b>	
Spike	0.3 mL

50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet

### MINI SPIKE, GREEN, LUER LOCK



319099-100

Filling volume	
<b>CM side</b>	
Spike	0.3 mL
<b>NaCl side</b>	
Spike	0.3 mL

Packing unit: 50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet

## Multiple Use 8h Syringes

### ELS\* 200 ML SYRINGE MU (8H)



314626-100

CM side	
Residual volume	1.5 mL
Filling volume	200 mL
NaCl side	
Residual volume	1.5 mL
Filling volume	200 mL

Packing unit: 50 pieces/carton | 1,200 pieces/pallet

## Single Head 8h Tube System

### ES 223 TUBE SYSTEM WITH DRIP CHAMBER



314081-100

	ID	Length	Filling volume
Pressure side	2 mm	210 mm	0.7 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

\* Easy Loading Syringe

# Multiple Use up to 8h

## Double Head 8h Tube Systems

### MRS 222 MR TUBE SYSTEM (8H)



314100-100  
for Accutron® CT-D Vision

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	120 mm	0.4 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
<b>NaCl side</b>			
Pressure side	2 mm	360 mm	1.1 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
<b>Common line</b>	1.5 mm	100 mm	0.2 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

### DOUBLE HEAD TUBE SYSTEM WITH 1 INLINE DRIP CHAMBER AND VALVE



314108-100

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	120 mm	0.4 mL
Suction side	2.7 mm	1,040 mm	6.0 mL
Drip chamber	-	-	10 mL
<b>NaCl side</b>			
Pressure side	2 mm	360 mm	1.1 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
<b>Common line</b>	1.5 mm	100 mm	4.0 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

### MRS 222 XS TUBE SYSTEM WITH EXCHANGEABLE SPIKES AND ADDITIONAL VALVE



314119-100  
for Accutron® CT-D Vision

**MEDTRON recommends!**

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	120 mm	0.4 mL
Suction side	2.7 mm	1,040 mm	6.0 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
<b>NaCl side</b>			
Pressure side	2 mm	360 mm	1.1 mL
Suction side	2.7 mm	1,040 mm	6.0 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
<b>Common line</b>	1.5 mm	200 mm	0.4 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

## Patient Lines for Use with 8h Tube Systems

### ES 224/25 PATIENT LINE WITH VALVE

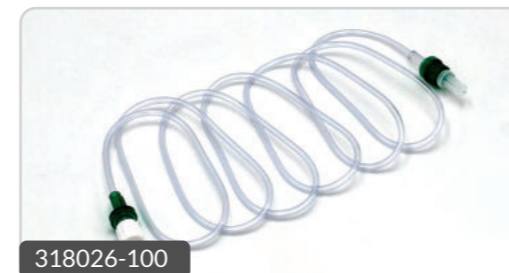


318020-100

	ID	Length	Filling volume
Line	1.5 mm	200 mm	0.4 mL

Packing unit: 100 pieces/carton | 8,000 pieces/pallet

### PATIENT LINE 150 CM WITH TERMINAL VALVES



318026-100

	ID	Length	Filling volume
Line	1.5 mm	1,500 mm	2.7 mL

Packing unit: 200 pieces/carton | 11,200 pieces/pallet

### PATIENT LINE WITH VALVE



318152-100

**MEDTRON recommends!**

	ID	Length	Filling volume	Article no.
Line	1.5 mm	1,500 mm	2.7 mL	318152-100
Line	1.5 mm	2,000 mm	3.5 mL	318198-100
Line	1.5 mm	2,500 mm	4.4 mL	318251-100
Line	1.5 mm	3,000 mm	5.3 mL	318301-100

Packing unit: 200 pieces/carton | 11,200 pieces/pallet

## Coiled Patient Lines for Use with 8h Tube Systems

### COILED LINE WITH VALVE



318214-000

	ID	Length	Filling volume
Line	1.7 mm	1,500 mm	3.2 mL

Packing unit: 50 pieces/carton | 5,850 pieces/pallet

# Multiple Use up to 8h

## COILED LINE WITH TWO VALVES



	ID	Length	Filling volume
Line	1.5 mm	1,500 mm	2.7 mL

Packing unit: 50 pieces/carton | 5,850 pieces/pallet

## Accessories

### VENTED SPIKE MU



	Filling volume
<b>CM side</b>	
Spike	0.3 mL
<b>NaCl side</b>	
Spike	0.3 mL

50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet

### MINI SPIKE, GREEN, LUER LOCK



	Filling volume
<b>CM side</b>	
Spike	0.3 mL
<b>NaCl side</b>	
Spike	0.3 mL

Packing unit: 50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet

# Multiple Use up to 24h

## Multiple Use 24h Syringes

### DAY SAFE SYRINGE 200 (24H)



#### CM side

Residual volume	1.5 mL
Filling volume	200 mL

#### NaCl side

Residual volume	1.5 mL
Filling volume	200 mL

Packing unit: 50 pieces/carton | 1,200 pieces/pallet

## Double Head 24h Tube System

### DAY SAFE FILLING TUBE D (24H)



	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	120 mm	0.4 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
<b>NaCl side</b>			
Pressure side	2 mm	360 mm	1.1 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
<b>Common line</b>	1.5 mm	100 mm	0.2 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

## Coiled Patient Lines for Use with 24h Tube Systems

### SURE PATIENT LINE SP 150, COILED LINE



	ID	Length	Filling volume
Line	1.5 mm	1,500 mm	2.7 mL

Packing unit: 50 pieces/carton | 11,200 pieces/pallet

## SURE PATIENT LINE SP 200, COILED LINE



318421-100  
for Accutron® CT-D Vision

	ID	Length	Filling volume
Line	1.5 mm	2,000 mm	3.5 mL

Packing unit: 50 pieces/carton | 11,200 pieces/pallet

## SURE PATIENT LINE SP 250, COILED LINE



318426-100  
for Accutron® CT-D Vision

	ID	Length	Filling volume
Line	1.5 mm	2,500 mm	4.4 mL

Packing unit: 50 pieces/carton | 11,200 pieces/pallet

## Patient Lines for Use with 24h Tube Systems

### SUre PATIENT LINE 150

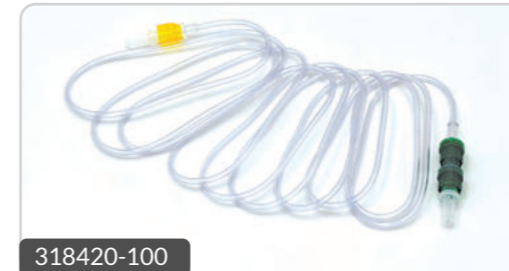


318415-100  
for Accutron® CT-D Vision

	ID	Length	Filling volume
Line	1.5 mm	1,500 mm	2.7 mL

Packing unit: 200 pieces/carton | 11,200 pieces/pallet

### SUre PATIENT LINE 200

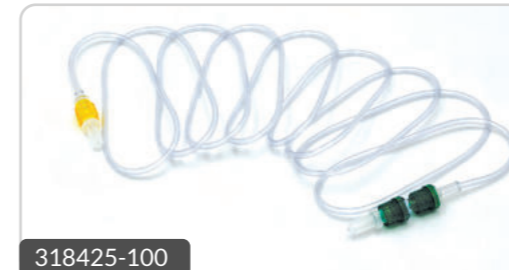


318420-100  
for Accutron® CT-D Vision

	ID	Length	Filling volume
Line	1.5 mm	2,000 mm	3.5 mL

Packing unit: 200 pieces/carton | 11,200 pieces/pallet

### SUre PATIENT LINE 250



318425-100  
for Accutron® CT-D Vision

	ID	Length	Filling volume
Line	1.5 mm	2,500 mm	4.4 mL

Packing unit: 200 pieces/carton | 9,600 pieces/pallet

## Accessories

### VENTED SPIKE MU



314095-100

	Filling volume
<b>CM side</b>	
Spike	0.3 mL
<b>NaCl side</b>	
Spike	0.3 mL

50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet

### MINI SPIKE, GREEN, LUER LOCK



319099-100

	Filling volume
<b>CM side</b>	
Spike	0.3 mL
<b>NaCl side</b>	
Spike	0.3 mL

Packing unit: 50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet

# MAGNETIC RESONANCE IMAGING

We develop contrast media injectors and related disposables for magnetic resonance imaging. You can find our MRI portfolio here.



## ACCUTRON® MR

The Accutron® MR is a dual head injector developed for precise injection of contrast media and saline solution in clinical MR imaging, including paediatrics, angiography, neurography and mammography as well as for other MRI routine examinations.

# 01



## ACCUTRON® MR3

The Accutron® MR3 is designed for precisely dosed injection of contrast media (CM) and saline solution (NaCl) as well as for the infusion of other fluids. It has an injection unit with three drive units. The third drive in the injection unit, the so-called infusion pump, is used to infuse additional medications required for specific MRI examinations. You can create both pure infusion phases and pure injection phases as well as combined phases with injection and infusion steps in a profile.

# 02



## DISPOSABLES

Our in-house production of disposables for contrast media injectors allows us to ensure optimum quality and constant availability of our disposables. We continuously refine and adapt them to satisfy the latest customer requirements and market developments.

# 03

- **UNIQUE**

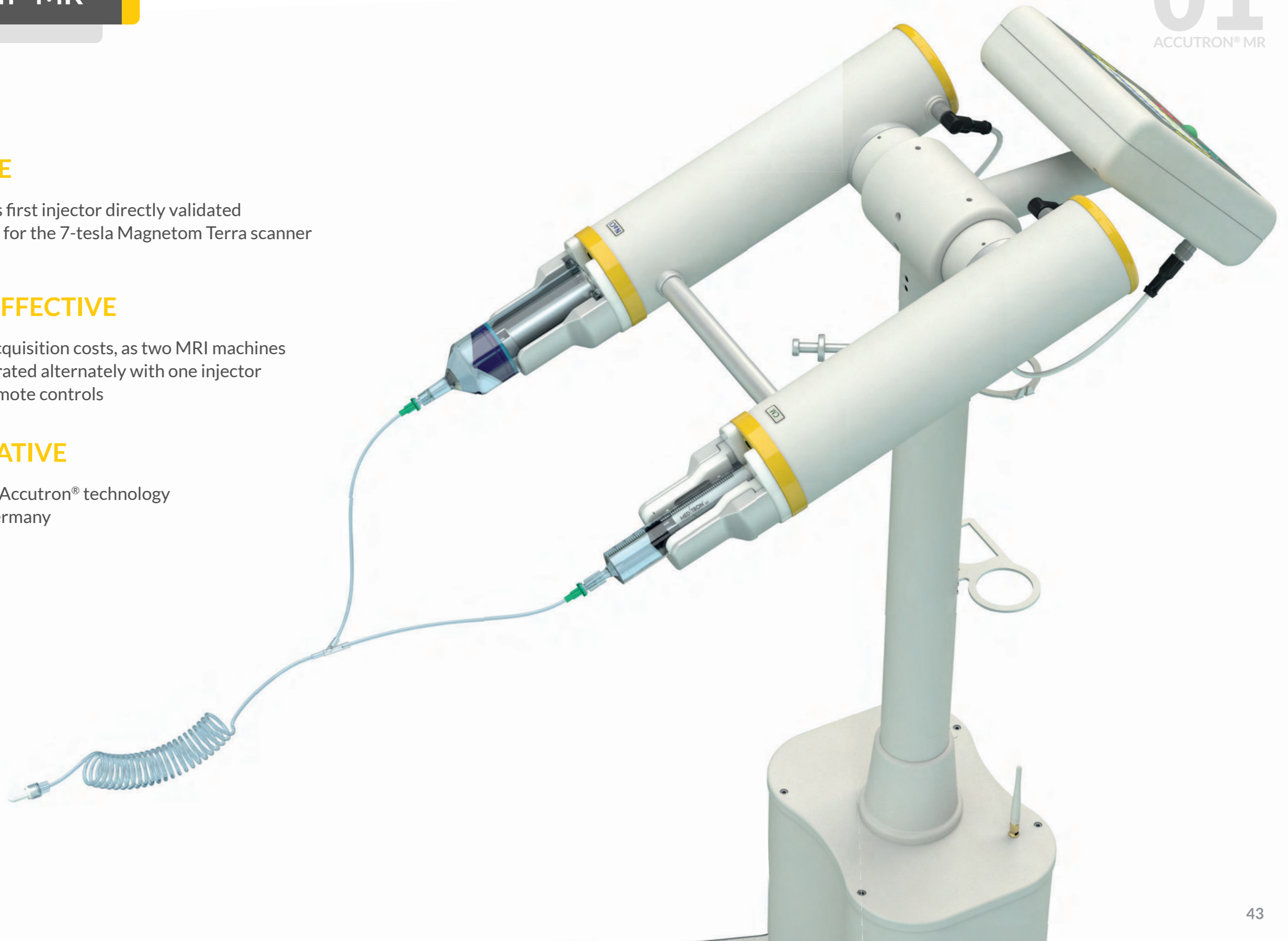
The world's first injector directly validated by Siemens for the 7-tesla Magnetom Terra scanner

- **COST-EFFECTIVE**

Reduced acquisition costs, as two MRI machines can be operated alternately with one injector and two remote controls

- **INNOVATIVE**

Innovative Accutron® technology  
Made in Germany



# Accutron® MR

The Accutron® MR is a dual head injector specially developed for magnetic resonance imaging. It is the world's first injector certified by Siemens for the 7T MAGNETOM Terra scanner. Besides its special "anti-magnetic" design, it also has the same highly precise technological properties and capabilities as all Accutron® injectors.

## CLINICAL GAINS

- Hygiene: All Accutron® injectors are made easy to clean, as they do not have any hidden sources of contamination such as inaccessible spaces or interiors. The use of pre-filled syringes also helps to minimise the risk of contamination.
- Patient safety: The KVO function (KVO = Keep Vein Open) keeps veins open for longer examinations, especially if an injection is paused during the examination.

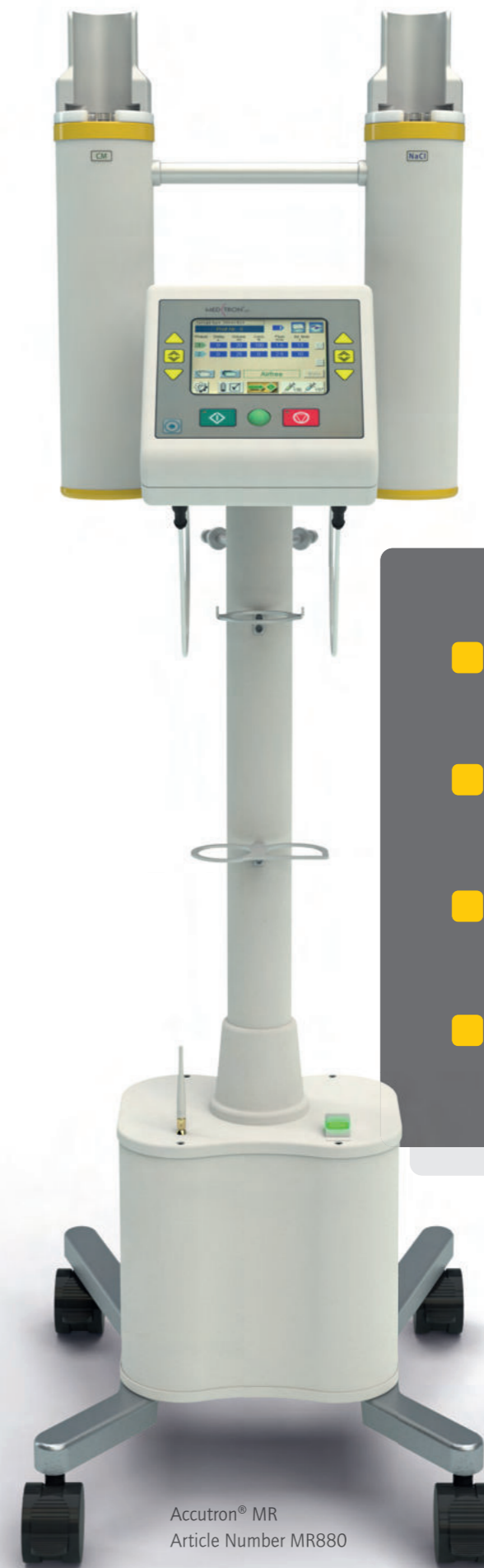
## OPERATIONAL GAINS

- Control: The injection parameters are shown on the display, enabling reliable monitoring of the injection. The injection can be paused and continued at any time during the examination.
- Flexibility: The Accutron® MR can also be equipped with pre-filled syringes in addition to our ELS\*200 mL and ELS\*65 mL.
- Mobility: The wireless Accutron® MR can be effortlessly moved to the MRI room – and can be optionally controlled by two remote controls.

## FINANCIAL GAINS

- The Accutron® MR is predestined for all conceivable requirements in magnetic resonance imaging. Our comprehensive range of disposables for single use and multiple use, for eight or 24 hours, perfects the injector in terms of flexibility. This allows you to keep your running costs low and generate an optimum cost-benefit ratio.

01  
ACCUTRON® MR



Accutron® MR  
Article Number MR880

- Effortless insertion and removal of Easy Loading Syringes (ELS)
- Visual control of the injection parameters
- Certified for 7T systems
- Flexibility thanks to wireless operation

## PRODUCT SELECTION

ARTICLE	DESCRIPTION	ARTICLE NUMBER
<b>MODELS</b>		
Accutron® MR Battery Version	Mobile dual head injector on rollers with high-output battery	MR880

### EQUIPMENT (INCLUSIVE)

Remote Control	Touch screen, with Bluetooth connection, incl. mains supply, transmitter and antenna
Charger	With country-specific plug
Cupholder and Bottle Holder	Holder on the injector, incl. cup
Adapter	For empty syringes 64 mL ELS*(2x)
Instructions for Use	Detailed description on how to use the device, incl. service log book

### OPTIONAL ACCESSORIES

Option Hand Switch on Remote Control	Hand switch, incl. hand switch holder for remote control	601065
Option Second Remote Control	Option for the use of two remote controls for MR880	490112
Software Option Pre-Filled Syringe Type D-1	Enables the use of pre-filled CM syringes via an adapter - Dotarem glass syringe, ProHance, Magnevist, Gadovist, Omniscan, Clariscan	490108
Software Option Pre-Filled Syringe Type D-2	Enables the use of pre-filled CM syringes via an adapter - Dotarem plastic syringe	490147 490201
Software Option Pre-Filled Syringe Type E	Enables the use of pre-filled CM syringes via an adapter - Elucirem	490148
Infusion Stands	With cupholder and cup	

## TECHNICAL DATA

#### Injection volume:

**max. 200 mL** per head, partial injection volume 0.1-200 mL programmable in 0.1 mL increments

#### Phases:

**1 to 6** phases

#### Injection pressure:

**max. 21 bar**, 5-21 bar, in 1 bar increments

#### Flow rate:

**0.1 - 10 mL/s**, programmable in 0.1 mL/s increments, optional selection of flow rate or phase duration

#### Injection profiles:

**80 profiles**, can be edited & stored by the user

#### Phase and injection delay:

**0 - 255 s**

#### Filling speed:

**1 - 5 mL/s**, CM/NaCl, programmable in 1 mL/s increments

#### Keep Vein Open:

**0.5 mL** every 2 minutes

Subject to technical alterations.





- **MPRO ASSIST**

MEDTRON profile wizard simplifies dose calculation for stress MRI examinations of the heart

- **SIMPLE HANDLING**

Overall control and easy handling during your most demanding procedures

- **ONE REMOTE CONTROL**

Control of complex examinations with a single remote control



# Accutron® MR3

The Accutron® MR3 was specially developed for magnetic resonance imaging. It is a dual head injector with an additional integrated infusion pump. Besides its design, which is specially adapted to the scanner's magnetic field, it also has the same highly precise technological properties and capabilities as all Accutron® injectors.

## CLINICAL GAINS

- Hygiene: All Accutron® injectors are made easy to clean, as they do not have any hidden sources of contamination such as inaccessible spaces or interiors. This minimises the risk of contamination.
- Safety: The KVO function (KVO = Keep Vein Open) keeps veins open for longer examinations, especially if an injection is paused during the examination.
- Expanded functional scope: The Accutron® MR3 was designed for performing pharmacological cardiac MRI stress tests. The integrated infusion pump allows the administration of additional fluids required for performing diagnostic examinations.

## OPERATIONAL GAINS

- Control: Showing the injection parameters on the display enables reliable monitoring of the injection. This can be paused and continued at any time during the examination.
- Flexibility: The Accutron® MR3 can also be equipped with pre-filled syringes in addition to our ELS\*200 mL and ELS\*65 mL.
- Mobility: The wireless Accutron® MR3 can be effortlessly moved to the MRI room.

## FINANCIAL GAINS

- The Accutron® MR3 can also be used as a normal dual head injector and is thus predestined for all conceivable requirements in magnetic resonance imaging.
- Our comprehensive range of disposables for single use and multiple use for eight or 24 hours perfects the injector in terms of flexibility. This allows you to keep your running costs low and generate an optimum cost-benefit ratio.

02  
ACCUTRON® MR3



- Effortless insertion and removal of Easy Loading Syringes (ELS)
- Additionally integrated infusion pump for administration of specific medications
- Visual control of the injection parameters
- Flexibility thanks to wireless operation

Accutron® MR3  
Article Number MR882

## PRODUCT SELECTION

ARTICLE	DESCRIPTION	ARTICLE NUMBER
<b>MODELS</b>		
Accutron® MR3 Battery Version	Mobile dual head injector with integrated infusion pump on rollers with high-output batteries	MR882

### EQUIPMENT (INCLUSIVE)

Remote Control	Touch screen, with Bluetooth connection, incl. mains supply, transmitter and antenna
Charger	With country-specific plug
Cupholder and Bottle Holder	Holder on the injector including cup
Instructions for Use	Detailed description on how to use the device, incl. service log book
Adapter	For empty syringes 64 mL ELS*(2x)

### OPTIONAL ACCESSORIES

Software Option Pre-Filled Syringe Type D-1	Enables the use of pre-filled CM syringes via an adapter - Dotarem glass syringe, ProHance, Magnevist, Gadovist, Omniscan, Clariscan	490163
Software Option	Enables the use of pre-filled CM syringes via an adapter - Dotarem plastic syringe	490146
Infusion Stands	For Accutron® MR3 with cupholder and cup	490201

## TECHNICAL DATA

### Injection volume:

**max. 200 mL** per head, partial injection volume 0.1 - 64 mL (CM), 0.1 - 200 mL (NaCl), 0.01 - 50 mL (infusion) programmable in 0.1 mL increments

### Phases:

**1 to 6** phases

### Injection pressure:

**max. 21 bar**, 5-21 bar, in 1 bar increments

### Flow rate:

**0.1 - 10 mL/s**, programmable in 0.1 mL/s increments, optional selection of flow rate or phase duration

### Injection profiles:

**80 profiles**, can be edited & stored by the user

### Phase and injection delay:

**0 - 255 s**

### Filling speed:

**1 - 4 mL/s**, CM/NaCl, programmable in 1 mL/s increments

### Keep Vein Open:

**1 mL** every 2 minutes

Subject to technical alterations.



## Sets for Single Use for MR Injectors

### MR SET ELS\* 65 ML



317602-000

65/65 mL version

2 x ELS* 65 mL Syringe	316065-000
1 x MR Tube System with Valves	317103-000
1 x Standard Spike	314095-100
1 x Mini Spike	319099-100

Packing unit: 50 pieces/carton | 1,000 pieces/pallet

### MR-SET ELS\*65 ML



317632-000

2 x ELS* 65 mL Syringe	316066-000
1 x MR-ELS*Tube System	317124-000
2 x Spike	50L000

Packing unit: 50 pieces/carton | 1,000 pieces/pallet

### MR SET ELS\* 65 ML/200 ML



317603-000

65/200 mL version

1 x ELS* 65 mL Syringe	316065-000
1 x ELS* 200 mL Syringe	316025-000
1 x Double Head Tube System	317101-000
1 x Vented Spike MU	314095-100
1 x Mini Spike, green MU	319099-100

Packing unit: 24 pieces/carton | 384 pieces/pallet

### MR KIT ELS\* 65 ML



317604-000

suitable for pre-filled syringes

1 x ELS* 65 mL Syringe	316065-000
1 x MR Tube System with 2 Valves	317104-100
1 x Standard Spike	319095-100

Packing unit: 50 pieces/carton | 1,200 pieces/pallet

### CT2/MRI SET ELS\*



317625-000

only for Accutron® MR,  
200/200 mL version

2 x ELS* 200 mL Syringe, QFT	316025-000
1 x MRS 222 MR Tube System	317100-000
1 x ES 224/150 Patient Line	318151-000

Packing unit: 20 pieces/carton | 600 pieces/pallet

### CT2/MRI SET ELS\* (S)



317627-000

only for Accutron® MR,  
200/200 mL version

2 x ELS* 200 mL Syringe, QFT	316026-000
1 x MRS 222 MR Tube System	317100-000
1 x ES 224/150 Patient Line	318151-000

Packing unit: 20 pieces/carton | 600 pieces/pallet

## Syringes for Single Use

### ELS\* 200 ML QFT



CM side	
Residual volume	1.5 mL
Filling volume	200 mL
NaCl side	
Residual volume	1.5 mL
Filling volume	200 mL

Packing unit: 50 pieces/carton | 1,500 pieces/pallet

### ELS\* 200 ML (S) SYRINGE



CM side	
Residual volume	1.5 mL
Filling volume	200 mL
NaCl side	
Residual volume	1.5 mL
Filling volume	200 mL

Packing unit: 50 pieces/carton | 1,500 pieces/pallet

### ELS\*\* 65 ML SYRINGE



CM side	
Residual volume	0.3 mL
Filling volume	65 mL
NaCl side	
Residual volume	0.3 mL
Filling volume	65 mL

Packing unit: 50 pieces/carton | 2,100 pieces/pallet

### ELS\*\* 65 ML SYRINGE



CM side	
Residual volume	0.3 mL
Filling volume	65 mL
NaCl side	
Residual volume	0.3 mL
Filling volume	65 mL

Packing unit: 50 pieces/carton | 2,100 pieces/pallet

## Tube Systems for Single Use

### DOUBLE HEAD TUBE SYSTEM



	ID	Length	Filling volume
CM side			
Pressure side	2 mm	60 mm	0.2 mL
NaCl side			
Pressure side	2 mm	300 mm	1.0 mL
Common line			
	1.5 mm	1,800 mm	3.2 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

### MR-ELS\*TUBE SYSTEM WITH VALVES



	ID	Length	Filling volume
CM side			
Pressure side	1.5 mm	100 mm	0.2 mL
NaCl side			
Pressure side	1.5 mm	340 mm	0.6 mL
Common line			
	1.5 mm	1,850 mm	3.3 mL

Packing unit: 50 pieces/carton | 4,950 pieces/pallet

### MRS 225 MR TUBE SYSTEM



	ID	Length	Filling volume
CM side			
Pressure side	2 mm	60 mm	0.2 mL
NaCl side			
Pressure side	2 mm	320 mm	1 mL

Packing unit: 50 pieces/carton | 4,000 pieces/pallet

## Tube Systems for Single Use

### COILED LINE 235 CM WITH Y-CONNECTOR AND VALVE



318235-000

	ID	Length	Filling volume
<b>CM side</b>			
Suction side	1.5 mm	100 mm	0.18 mL
<b>NaCl side</b>			
Pressure side	1.5 mm	120 mm	0.2 mL
<b>Common line</b>	1.5 mm	2,350 mm	4.2 mL

Packing unit: 50 pieces/carton | 4,950 pieces/pallet

## Tube Systems with Filling Function for Single Use

### ES 223 TUBE SYSTEM WITH SPIKE/21 BAR



317080-100

for Accutron® MR in single head operation

	ID	Length	Filling volume
Pressure side	2 mm	160 mm	0.5 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Spike	-	-	0.2 mL

Packing unit: 50 pieces/carton | 4,000 pieces/pallet

### EK 223 TUBE SYSTEM WITH DRIP CHAMBER (21 BAR/305 PSI)



317081-100

for Accutron® MR in single head operation

	ID	Length	Filling volume
Pressure side	2 mm	210 mm	0.7 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.2 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

### TUBE SYSTEM WITH SUCTION LINE AND DRIP CHAMBER



317083-100

suitable for pre-filled syringes

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	60 mm	0.2 mL
<b>NaCl side</b>			
Pressure side	2 mm	320 mm	1.0 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.2 mL
<b>Common line</b>	1.5 mm	1,500 mm	2.7 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

### MRS-222 MR TUBE SYSTEM



317100-100

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	120 mm	0.4 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.2 mL
<b>NaCl side</b>			
Pressure side	2 mm	360 mm	1.1 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.1 mL
<b>Common line</b>	1.5 mm	100 mm	0.2 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

### SD 225 SUCTION TUBE WITH THREE-WAY STOP COCK AND SPIKE



319080-100

for Accutron® MR in single head operation

	ID	Length	Filling volume
Tube	2.7 mm	1,000 mm	5.7 mL
Spike	-	-	0.2 mL

Packing unit: 50 pieces/carton | 4,000 pieces/pallet

## Short Patient Lines for Intravenous Access

### DW 229 PATIENT LINE WITH THREE-WAY STOP COCK



318042-100

	ID	Length	Filling volume
Line	1.5 mm	100 mm	0.2 mL
Three-way stop cock	-	-	0.3 mL

Packing unit: 100 pieces/carton | 8,000 pieces/pallet

### ONE-WAY STOP COCK WITH 30 CM EXTENSION LINE, LUER LOCK



318025-100

	ID	Length	Filling volume
Line	2 mm	300 mm	1.0 mL
One-way stop cock	-	-	0.2 mL

Packing unit: 100 pieces/carton | 5,600 pieces/pallet

## Patient Lines with One Valve

### ES 224/25 PATIENT LINE WITH VALVE



318020-100

	ID	Length	Filling volume
Line	1.5 mm	200 mm	0.4 mL

Packing unit: 100 pieces/carton | 8,000 pieces/pallet

### PATIENT LINE WITH VALVE



MEDTRON recommends!

	ID	Length	Filling volume	Article no.
Line	1.5 mm	1,500 mm	2.7 mL	318152-100
Line	1.5 mm	2,000 mm	3.5 mL	318198-100
Line	1.5 mm	2,500 mm	4.4 mL	318251-100
Line	1.5 mm	3,000 mm	5.3 mL	318301-100

Packing unit: 200 pieces/carton | 11,200 pieces/pallet

### COILED LINE WITH VALVE



318214-000

	ID	Length	Filling volume
Line	1.7 mm	1,500 mm	3.2 mL

Packing unit: 50 pieces/carton | 5,850 pieces/pallet

### COILED LINE WITH VALVE



318253-000

	ID	Length	Filling volume
Line	1.5 mm	2,500 mm	4.4 mL

Packing unit: 50 pieces/carton | 5,850 pieces/pallet

## Patient Lines with One Valve

### COILED LINE 300 CM WITH VALVE



318303-000

	ID	Length	Filling volume
Line	1.5 mm	3,000 mm	5.3 mL

Packing unit: 50 pieces/carton | 4,950 pieces/pallet

### COILED LINE WITH TWO VALVES



318217-000

	ID	Length	Filling volume
Line	1.5 mm	1,500 mm	2.7 mL

Packing unit: 50 pieces/carton | 5,850 pieces/pallet

## Patient Lines with Two Valves

### PATIENT LINE 150 CM WITH TERMINAL VALVES



318026-100

	ID	Length	Filling volume
Line	1.5 mm	1,500 mm	2.7 mL

Packing unit: 200 pieces/carton | 11,200 pieces/pallet

## Patient Lines without Valves

### ES 224 PATIENT LINE



MEDTRON recommends!

	ID	Length	Filling volume	Article no.
ES 224/100	1.5 mm	1,000 mm	1.8 mL	318101-100
ES 224/150	1.5 mm	1,500 mm	2.7 mL	318151-100
ES 224/200	1.5 mm	2,000 mm	3.5 mL	318199-100

Packing unit: 200 pieces/carton | 11,200 pieces/pallet

### PATIENT LINE 150 CM WITH 2 VALVES



318036-000

	ID	Length	Filling volume
Line	2 mm	1,600 mm	5.0 mL

Packing unit: 50 pieces/carton | 4,000 pieces/pallet

### COILED LINE 150 CM



318213-000

	ID	Length	Filling volume
Line	1.7 mm	1,500 mm	3.2 mL

Packing unit: 50 pieces/carton | 5,850 pieces/pallet



# Disposables

## Accessories

### DW 226 THREE-WAY STOP COCK



319085-100

Filling volume	
Three-way stop cock	0.3 mL

Packing unit: 50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet

### VENTED SPIKE MU



314095-100

Filling volume	
<b>CM side</b>	
Spike	0.3 mL
<b>NaCl side</b>	
Spike	0.3 mL

50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet

### MINI SPIKE, GREEN, LUER LOCK



319099-100

Filling volume	
<b>CM side</b>	
Spike	0.3 mL
<b>NaCl side</b>	
Spike	0.3 mL

Packing unit: 50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet

# Multiple Use up to 8h

## Multiple Use 8h Syringes

### ELS\* 200 ML SYRINGE MU (8H)



314626-100

<b>CM side</b>	
Residual volume	1.5 mL
Filling volume	200 mL
<b>NaCl side</b>	
Residual volume	1.5 mL
Filling volume	200 mL

Packing unit: 50 pieces/carton | 1,200 pieces/pallet

## Single Head 8h Tube System

### ES 223 TUBE SYSTEM WITH DRIP CHAMBER



314081-100

	ID	Length	Filling volume
Pressure side	2 mm	210 mm	0.7 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

## Double Head 8h Tube Systems

### MRS 222 MR TUBE SYSTEM (8H)



314100-100

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	120 mm	0.4 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
<b>NaCl side</b>			
Pressure side	2 mm	360 mm	1.1 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
<b>Common line</b>			
	1.5 mm	100 mm	0.2 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

## DOUBLE HEAD TUBE SYSTEM WITH 1 INLINE DRIP CHAMBER AND VALVE



314108-100

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	120 mm	0.4 mL
Suction side	2.7 mm	1,040 mm	6.0 mL
Drip chamber	-	-	10 mL
<b>NaCl side</b>			
Pressure side	2 mm	360 mm	1.1 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
<b>Common line</b>	1.5 mm	2,000 mm	4.0 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

## MRS 222 XS TUBE SYSTEM WITH EXCHANGEABLE SPIKES AND ADDITIONAL VALVE



314119-100

**MEDTRON recommends!**

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	120 mm	0.4 mL
Suction side	2.7 mm	1,040 mm	6.0 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
<b>NaCl side</b>			
Pressure side	2 mm	360 mm	1.1 mL
Suction side	2.7 mm	1,040 mm	6.0 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
<b>Common line</b>	1.5 mm	200 mm	0.4 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

## Patient Lines for Use with 8h Tube Systems

### ES 224/25 PATIENT LINE WITH VALVE



318020-100

	ID	Length	Filling volume
Line	1.5 mm	200 mm	0.4 mL

Packing unit: 100 pieces/carton | 8,000 pieces/pallet

### PATIENT LINE 150 CM WITH TERMINAL VALVES



318026-100

	ID	Length	Filling volume
Line	1.5 mm	1,500 mm	2.7 mL

Packing unit: 200 pieces/carton | 11,200 pieces/pallet

### PATIENT LINE WITH VALVE



**MEDTRON recommends!**

	ID	Length	Filling volume	Article no.
Line	1.5 mm	1,500 mm	2.7 mL	318152-100
Line	1.5 mm	2,000 mm	3.5 mL	318198-100
Line	1.5 mm	2,500 mm	4.4 mL	318251-100
Line	1.5 mm	3,000 mm	5.3 mL	318301-100

Packing unit: 200 pieces/carton | 11,200 pieces/pallet

## Coiled Patient Lines for Use with 8h Tube Systems

### COILED LINE WITH VALVE



318214-000

	ID	Length	Filling volume
Line	1.7 mm	1,500 mm	3.2 mL

Packing unit: 50 pieces/carton | 5,850 pieces/pallet

# Multiple Use up to 8h

## COILED LINE WITH TWO VALVES



318217-000

Filling volume	
Tube	2.7 mL

Packing unit: 50 pieces/carton | 5,850 pieces/pallet

## Accessories

### VENTED SPIKE MU



314095-100

Filling volume	
<b>CM side</b>	
Spike	0.3 mL
<b>NaCl side</b>	
Spike	0.3 mL

50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet

### MINI SPIKE, GREEN, LUER LOCK



319099-100

Filling volume	
<b>CM side</b>	
Spike	0.3 mL
<b>NaCl side</b>	
Spike	0.3 mL

Packing unit: 50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet

# Multiple Use up to 24h

03  
DISPOSABLES

## Multiple Use 24h Syringes

### ELS® 200 ML SYRINGE MU (24H)



312426-100

#### CM side

Residual volume	1.5 mL
Filling volume	200 mL

#### NaCl side

Residual volume	1.5 mL
Filling volume	200 mL

Packing unit: 50 pieces/carton | 1,200 pieces/pallet

### DAY SAFE SYRINGE 65



312465-100

#### CM side

Residual volume	0.3 mL
Filling volume	65 mL

#### NaCl side

Residual volume	0.3 mL
Filling volume	65 mL

Packing unit: 50 pieces/carton | 1,200 pieces/pallet

## Dual Head 24h Tube Systems

### DAY SAFE FILLING TUBE D (24H)



312400-100

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	2 mm	120 mm	0.4 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
<b>NaCl side</b>			
Pressure side	2 mm	360 mm	1.1 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
<b>Common line</b>			
	1.5 mm	100 mm	0.2 mL

Packing unit: 50 pieces/carton | 2,800 pieces/pallet

## Coiled Patient Lines for Use with 24h Tube Systems

### SUre PATIENT LINE SP 150, COILED LINE



	ID	Length	Filling volume
Line	1.5 mm	1,500 mm	2.7 mL

Packing unit: 50 pieces/carton | 11,200 pieces/pallet

### SURE PATIENT LINE SP 200, COILED LINE



	ID	Length	Filling volume
Line	1.5 mm	2,000 mm	3.5 mL

Packing unit: 50 pieces/carton | 11,200 pieces/pallet

### SURE PATIENT LINE SP 250, COILED LINE



	ID	Length	Filling volume
Line	1.5 mm	2,500 mm	4.4 mL

Packing unit: 50 pieces/carton | 11,200 pieces/pallet

## Patient Lines for Use with 24h Tube Systems

### SUre PATIENT LINE 150



	ID	Length	Filling volume
Line	1.5 mm	1,500 mm	2.7 mL

Packing unit: 200 pieces/carton | 11,200 pieces/pallet

### SUre PATIENT LINE 200



	ID	Length	Filling volume
Line	1.5 mm	2,000 mm	3.5 mL

Packing unit: 200 pieces/carton | 11,200 pieces/pallet

### SUre PATIENT LINE 250



	ID	Length	Filling volume
Line	1.5 mm	2,500 mm	4.4 mL

Packing unit: 200 pieces/carton | 9,600 pieces/pallet

# Multiple Use up to 24h

03  
DISPOSABLES

## Accessories

### VENTED SPIKE MU



314095-100

Filling volume	
<b>CM side</b>	
Spike	0.3 mL
<b>NaCl side</b>	
Spike	0.3 mL

50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet

### MINI SPIKE, GREEN, LUER LOCK



319099-100

Filling volume	
<b>CM side</b>	
Spike	0.3 mL
<b>NaCl side</b>	
Spike	0.3 mL

Packing unit: 50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet



# ANGIOGRAPHY

We develop contrast media injectors and related disposables for angiography. You can find our angio portfolio here.



## ACCUTRON® HP-D

The Accutron® HP-D is a real multi-talent – a dual head contrast media injector designed for precise high-pressure injection of contrast media and saline solution in angiography examinations, which can also be used in computed tomography.

# 01



## ACCUTRON® HP

The Accutron® HP is a single head contrast media injector designed for precise high-pressure injection of contrast media in angiography examinations. Accutron® HP is an all-rounder, because it can be used in both angiography examinations and computed tomography.

# 02



## DISPOSABLES

Our in-house production of disposables for contrast media injectors allows us to ensure optimum quality and constant availability of our disposables. We continuously refine and adapt them to satisfy the latest customer requirements and market developments.

# 03

- **SINGLE MODE**

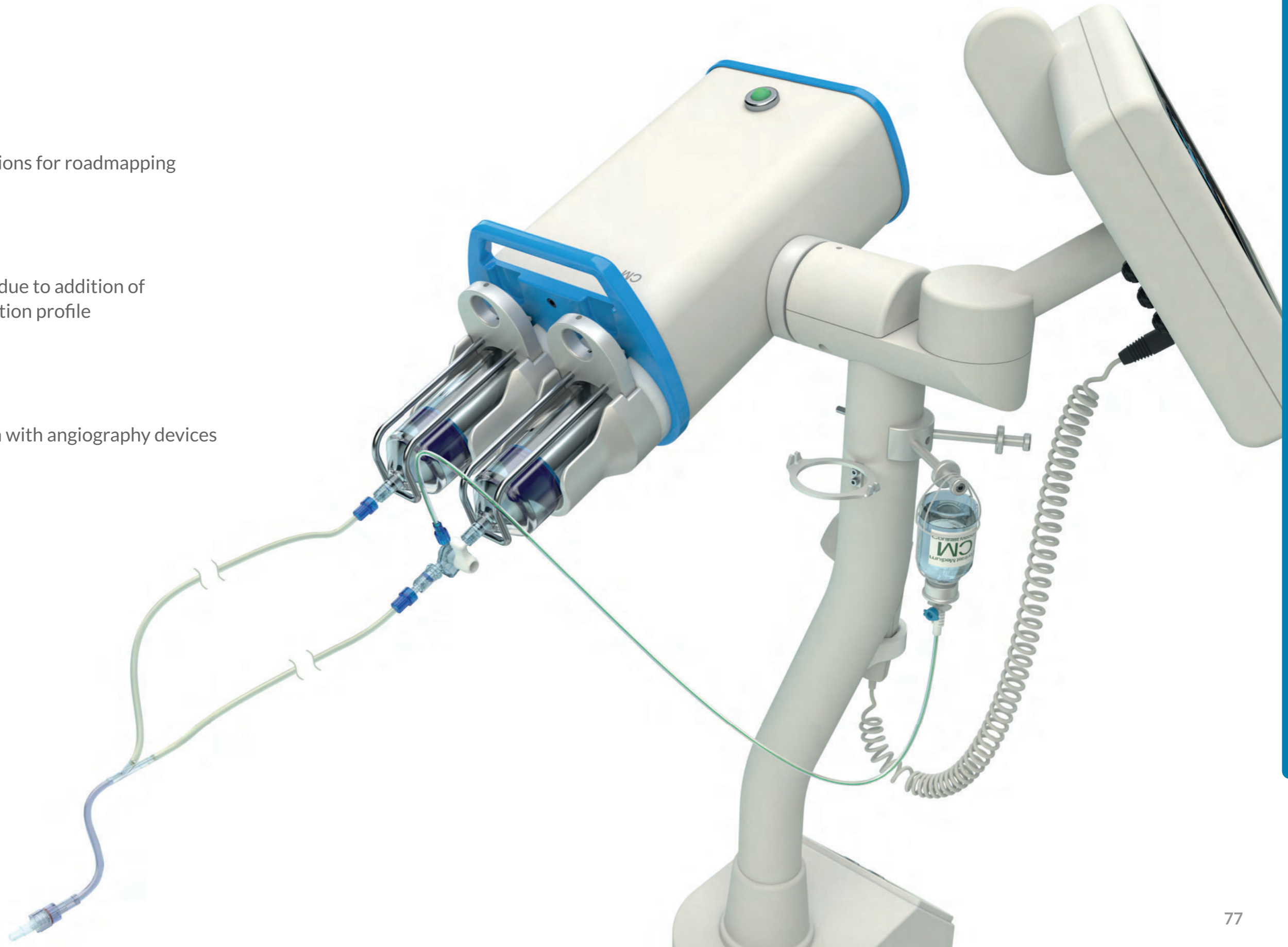
Single-mode single injections for roadmapping

- **MIXED PHASES**

Optimised image quality due to addition of mixed phases to the injection profile

- **INTEGRATABLE**

Wireless synchronisation with angiography devices



# Accutron® HP-D

The dual head injector Accutron® HP-D was developed for angiography applications requiring high injection pressure, but it can be used just as effectively in hybrid angio/CT rooms. This makes the Accutron® HP-D your ideal companion in all areas of interventional radiology.

## CLINICAL GAINS

- Hygiene: All Accutron® injectors are made easy to clean, as they do not have any hidden sources of contamination such as inaccessible spaces or interiors. This minimises the risk of contamination.
- Precision: Hardening artefacts caused by the contrast media are minimised through adjustment of contrast media concentrations using saline solution. Furthermore, the dose of contrast media is reduced for the patient without any loss in image quality.
- Versatility: The Accutron® HP-D is designed for use in angiography and computed tomography examinations.

## OPERATIONAL GAINS

- Ergonomics: The 180° swivel-mounted display enables the Accutron® HP-D to be conveniently operated from both sides of the operating table.
- Connectivity: The Accutron® HP-D uses the interface to synchronise with the angiography machine.
- Mobility: The battery-operated Accutron® HP-D can be effortlessly moved to the examination room without any annoying cables.

## FINANCIAL GAINS

- The Accutron® HP-D can be operated with both one and two syringes, just like all dual head injectors. It is therefore predestined for all diagnostic and interventional examinations in angiography and computed tomography.
- Our customised solutions for disposables keep operating costs manageable.

01  
ACCUTRON® HP-D



- Automatic pressure jacket detection
- Constant temperature of injection fluids
- Visual control of the injection parameters
- Flexibility thanks to wireless operation
- Interface to angiography device

Accutron® HP-D  
Article Number HP833



## PRODUCT SELECTION

ARTICLE	DESCRIPTION	ARTICLE NUMBER
<b>MODELS</b>		
Accutron® HP-D Battery Version	Mobile dual head injector on rollers with high-output battery	HP833

### EQUIPMENT (INCLUSIVE)

Charger	With mains supply function, with country-specific plug
Dual Function Hand Switch with Coiled Cable	For starting and stopping injection and saline flush
Pressure jacket (2x)	For HP ELS*200
Cupholder and Bottle Holder	Holder on the injector, incl. cup
Instructions for Use	Detailed description on how to use the device, incl. service log book

### OPTIONAL ACCESSORIES

Remote Control	Touch screen, with Bluetooth connection, incl. mains supply, transmitter and antenna	FB834
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### OEM C-ARM SYNCHRONIZATION INTERFACES

Interface Canon	Compatible with Canon angio devices	IF859-C
Interface GE	Compatible with GE angio devices	IF859-G
Interface Philips	Compatible with Philips angio devices	IF859-P
Interface Shimadzu	Compatible with Shimadzu angio devices	IF859-S
Interface Siemens Artis	Compatible with Siemens Artis angio devices	IF859
Interface Siemens Cios	Compatible with mobile C-arms Siemens Cios Alpha & Fusion	IF859-SC
Interface Ziehm	Compatible with mobile C-arms in the Ziehm Vision series	IF859-Z
Interface Switch	Interface to connect 2 angio devices	IF859-SW
DVI Interface	"DVI interface for the angio devices of Siemens and Philips to display the screen of the injector on the screen of the angio device"	490150

## TECHNICAL DATA

#### Injection volume:

Per head **max. 200 mL**, partial injection volume 1 - 200 mL, programmable in 1 mL increments

#### Injection, phase, X-ray & scan delay:

**0 - 255 s**

#### Angio mode

##### Injection pressure:

**max. 83 bar** (1200 psi), 5-83 bar (75-1200 psi), programmable in 1 bar increments

#### CT mode

##### Injection pressure:

**max. 21 bar**, 5 - 21 bar, programmable in 1 bar increments

#### Injection profiles:

**120 profiles**, 60 profiles each mode, can be edited & stored by the user

#### Phases:

**1 to 3** phases

#### Flow rate:

**0.1 - 30 mL/s**, programmable in 0.1 mL/s increments

#### Flow rate:

**0.1 - 10 mL/s**, programmable in 0.1 mL/s increments

#### Filling speed:

**1 - 4 mL/s**, programmable in 1 mL increments

#### Keep Vein Open:

**1 - 4 mL** every 4 minutes

#### Rising time:

**0.1 - 10 s**, programmable in 0.1 s increments

Subject to technical alterations.



- **SINGLE MODE**

Single-mode single injections for roadmapping

- **MULTIPLE MODE**

Multiple injections for navigation control in multiple mode

- **INTEGRATABLE**

Wireless synchronisation with angiography devices



# Accutron® HP

The single head injector Accutron® HP was developed for angiography applications requiring high injection pressure, but it can be used just as effectively in hybrid angio/CT rooms. This makes the Accutron® HP your ideal companion in all areas of interventional radiology.

## CLINICAL GAINS

- Hygiene: All Accutron® injectors are made easy to clean, as they do not have any hidden sources of contamination such as inaccessible spaces or interiors. This minimises the risk of contamination.
- Versatility: The Accutron® HP is designed for use in diagnostic and interventional examinations both in angiography and computed tomography.

## OPERATIONAL GAINS

- Control: The injection parameters are shown on the display, enabling reliable monitoring of the injection at any time during the examination.
- Connectivity: The Accutron® HP uses the interface to synchronise with the angiography machine.
- Mobility: The battery-operated Accutron® HP can be effortlessly moved to the examination room without any annoying cables.

## FINANCIAL GAINS

- The Accutron® HP can be used for all diagnostic and interventional examinations in angiography and computed tomography.
- Our customised solutions for disposables keep operating costs manageable.

02  
ACCUTRON® HP



- Automatic pressure jacket detection
- Constant temperature of injection fluids
- Visual control of the injection parameters
- Flexibility thanks to wireless operation
- Interface to angiography device

Accutron® HP  
Article Number HP836

## PRODUCT SELECTION

ARTICLE	DESCRIPTION	ARTICLE NUMBER
<b>MODELS</b>		
Accutron® HP Battery Version	Mobile single head injector on rollers with high-output battery	HP836
Accutron® HP Power Supply Version	Mobile single head injector on rollers with mains supply	HP832
Accutron® HP Table Mounted Version Siemens	Single head injector for Siemens-compatible tables	HP890
Accutron® HP Table Mounted Version Philips	Single head injector for Philips-compatible tables	HP890-1
Accutron® HP Table Mounted Version GE	Single head injector for GE-compatible tables	HP890-2
Accutron® HP Table Mounted Version Ziehm	Single head injector for Ziehm-compatible tables	HP890

### EQUIPMENT (INCLUSIVE)

Charger (for HP 836)	With mains supply function, with country-specific plug
Mains Supply	With country-specific plug
Hand Switch with Coiled Cable	For starting and stopping injection
Pressure jacket (1x)	For HP ELS* 200
Cupholder and Bottle Holder	Holder on the injector, incl. cup
Instructions for Use	Detailed description on how to use the device, incl. service log book

### OPTIONAL ACCESSORIES

Remote Control	Touch screen, with Bluetooth connection, incl. mains supply, transmitter and antenna	FB838
Infusion Stands (for HP 836)	For Accutron® HP 836 with cupholder and cup	490201
Infusion Stands (for HP 832)	For Accutron® HP 832 with cupholder and cup	490200

### OEM INTERFACES

Interface Canon	Compatible with Canon angio devices	IF839-C
Interface GE	Compatible with GE angio devices	IF839-G
Interface Philips	Compatible with Philips angio devices	IF839-P
Interface Shimadzu	Compatible with Shimadzu angio devices	IF839-S
Interface Siemens Artis	Compatible with Siemens Artis angio devices	IF839
Interface Siemens Cios	Compatible with mobile C-arms Siemens Cios Alpha & Fusion	IF839-SC
Interface Ziehm	Compatible with mobile C-arms in the Ziehm Vision series	IF839-Z

## TECHNICAL DATA

### Injection volume:

**max. 200 mL**, partial injection volume  
1 - 200 mL, programmable in 0.1 mL increments

### Injection, phase, X-ray and scan delay:

**0 - 255 s** injection and phase delay  
**0 - 99 s** X-ray and scan delay

### Angio mode

#### Injection pressure:

**max. 83 bar** (1200 psi), 5 - 83 bar (73 - 1200 psi), programmable in 1 bar increments

### CT mode

#### Injection pressure:

**max. 21 bar**, 5 - 21 bar, programmable in 1 bar increments

### Injection profiles:

**120 profiles**, 60 profiles for each mode, can be edited & stored by the user

### Phases:

**1 to 3** phases

### Flow rate:

**0.1 - 30 mL/s**, programmable in 0.1 mL/s increments

### Flow rate:

**0.1 - 10 mL/s**, programmable in 0.1 mL/s increments

Subject to technical alterations.



## Syringes for Single Use

### ELS\* 200 ML QFT



CM side	
Residual volume	1.5 mL
Filling volume	200 mL
NaCl side	
Residual volume	1.5 mL
Filling volume	200 mL

Packing unit: 50 pieces/carton | 1,500 pieces/pallet

316025-000

### ELS\* 200 ML (S) SYRINGE



CM side	
Residual volume	1.5 mL
Filling volume	200 mL
NaCl side	
Residual volume	1.5 mL
Filling volume	200 mL

Packing unit: 50 pieces/carton | 1,500 pieces/pallet

316026-000

## Single Head Tube Systems for Single Use

### HSD 525 SUCTION TUBE 100



	ID	Length	Filling volume
Tube	2.7 mm	1,000 mm	5.7 mL
Spike	-	-	0.3 mL
Three-way stop cock	-	-	0.3 mL

Packing unit: 50 pieces/carton | 4,000 pieces/pallet

315081-100

**MEDTRON**  
recommends!

### HSD 527 SUCTION TUBE WITH VALVE



315082-000

	ID	Length	Filling volume
Tube	2.7 mm	1,000 mm	5.7 mL
Spike	-	-	0.3 mL
Drip chamber	-	-	10 mL

Packing unit: 50 pieces/carton | 5,000 pieces/pallet

### HSD 527 SUCTION TUBE WITH VALVE AND INLINE DRIP CHAMBER



315083-000

For Scanbag® CM supply bag

	ID	Length	Filling volume
Tube	2.7 mm	1,040 mm	6.0 mL
Drip chamber	-	-	10 mL

Packing unit: 50 pieces/carton | 5,000 pieces/pallet

## Double Head Tube Systems for Single Use

### ACCUTRON® HP-D TUBE SYSTEM



317183-000

	ID	Length	Filling volume
CM side			
Pressure side	1.8 mm	160 mm	0.4 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL
NaCl side			
Pressure side	1.8 mm	160 mm	0.4 mL
Suction side	2.7 mm	1,000 mm	5.7 mL
Drip chamber	-	-	10 mL
Spike	-	-	0.3 mL

Packing unit: 25 pieces/carton | 2,500 pieces/pallet

## Double Head Pressure Tubes

### ACCUTRON® HP-D Y-CONNECTOR 83 BAR WITH 2 RV AND RA



317187-000

	ID	Length	Filling volume
<b>CM side</b>			
Pressure side	1.8 mm	180 mm	0.5 mL
<b>NaCl side</b>			
Pressure side	1.8 mm	180 mm	0.5 mL
<b>Common line</b>	1.5 mm	2,000 mm	3.5 mL

Packing unit: 25 pieces/carton | 2,500 pieces/pallet

## Single Head Pressure Tubes, TPU Braided

### HS 224 RA PATIENT LINE



Rotating luer

MEDTRON recommends!

	ID	Length	Filling volume	Article no.
HS 224/100	1.8 mm	985 mm	2.7 mL	315100-000
HS 224/150	1.8 mm	1,500 mm	3.8 mL	315136-000
HS 224/180	1.8 mm	1,800 mm	4.6 mL	315135-000

Packing unit: 50 pieces/carton | 4,000 pieces/pallet (HS 224/100)  
Packing unit: 25 pieces/carton | 2,475 pieces/pallet (HS 224/150, HS 224/180)

### HS 224 PATIENT LINE



315134-000

Fixed luer

	ID	Length	Filling volume
HS 224/180	1.8 mm	1,800 mm	4.6 mL

Packing unit: 25 pieces/carton | 2,475 pieces/pallet

### HS 224/180 PATIENT LINE



315124-000

Rotating luer

ID	Length	Filling volume
1.8 mm	1,800 mm	4.6 mL

Packing unit: 25 pieces/carton | 5,000 pieces/pallet

## Single Head Pressure Tubes, Crystal Clear PVC-Flex

### HP RA PATIENT LINE PVC



Rotating luer

**MEDTRON**  
recommends!

	ID	Length	Filling volume	Article no.
RA 120	1.5 mm	1,200 mm	2.1 mL	315130-000
RA 150	1.4 mm	1,500 mm	2.2 mL	315138-000

Packing unit: 50 pieces/carton | RA 120: 5,000 pieces/pallet  
RA 150: 2,800 pieces/pallet

### HP PATIENT LINE PVC

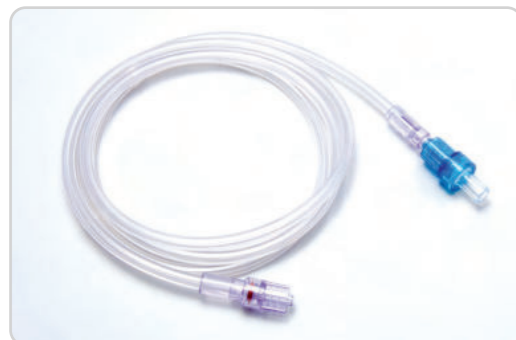


Fixed luer

	ID	Length	Filling volume	Article no.
HP 120	1.5 mm	1,200 mm	2.1 mL	315129-000
HP 180	1.5 mm	1,800 mm	3.2 mL	315132-000

Packing unit: 50 pieces/carton | 5,000 pieces/pallet

### HP PATIENT LINE WITH VALVE, PVC-FLEX



With valve

	ID	Length	Filling volume	Article no.
HP 120	1.5 mm	1,200 mm	2.1 mL	315137-100
HP 150	1.5 mm	1,500 mm	2.7 mL	315121-000

Packing unit: 50 pieces/carton | 5,000 pieces/pallet

## Accessories

### HDW 526 HIGH PRESSURE THREE-WAY STOP COCK



315087-100

	Filling volume
Three-way stop cock	0.3 mL

Packing unit: 50 pieces/carton | 200 pieces/carton | 11,200 pieces/pallet

# DISPOSABLES

We offer a wide range of disposables for contrast media injectors and have optimised products for many different applications. Our MEDTRON disposables have been specifically tailored for injecting contrast media in CT, MRI and angiography examinations. Their pressure resistance is validated, and they are DEHP-free.

The product range encompasses disposables for single use, disposables for multiple use for up to 8 hours, and our Day Safe System for multiple use for up to 24 hours. In-house production of disposables for contrast media injectors allows us to ensure optimum quality and constant availability of our disposables. We continuously refine and adapt them to satisfy the latest customer requirements and market developments.

## MULTI USE



### DAY SAFE SYSTEM (24 H)

**Day Safe System** is the **disposable from MEDTRON** for multiple use for up to **24 hours**. The Day Safe Syringes together with the Day Safe Filling Tube D form a closed filling and injection unit, which only needs to be changed once per day. Completed by the SURE Patient Line, which is changed per patient and equipped with two check valves, the Day Safe System guarantees safety and control up to 24 hours.

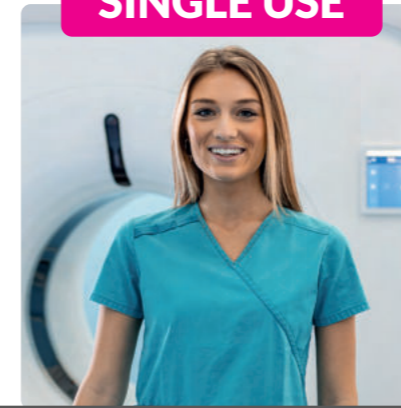
# 01

### MULTIPLE USE (8 H)

We strive to make our products easy to use. Our sophisticated disposables for multiple use for up to 8 hours are user-friendly and will significantly simplify your workflow during the examination! You can save time and material with our customisable modular system comprising an 8h syringe, 8h tube system and patient line (with green check valve). Look forward to up to 8 hours without syringe and tube system changes.

# 02

## SINGLE USE



### SINGLE USE

We support medical professionals with an extensive range of MEDTRON disposables for single use and offer suitable products for many different workflows, applications and spatial conditions. Our single-use disposables range from patient lines in different designs and variants to tube systems, syringes and disposable sets. You can find the detailed list of single-use disposables in the respective sections under "Disposables".



# Day Safe System (24h)

## A CLOSED AND TRANSPARENT SYSTEM

### Optimum Safety, Optimum UserComfort

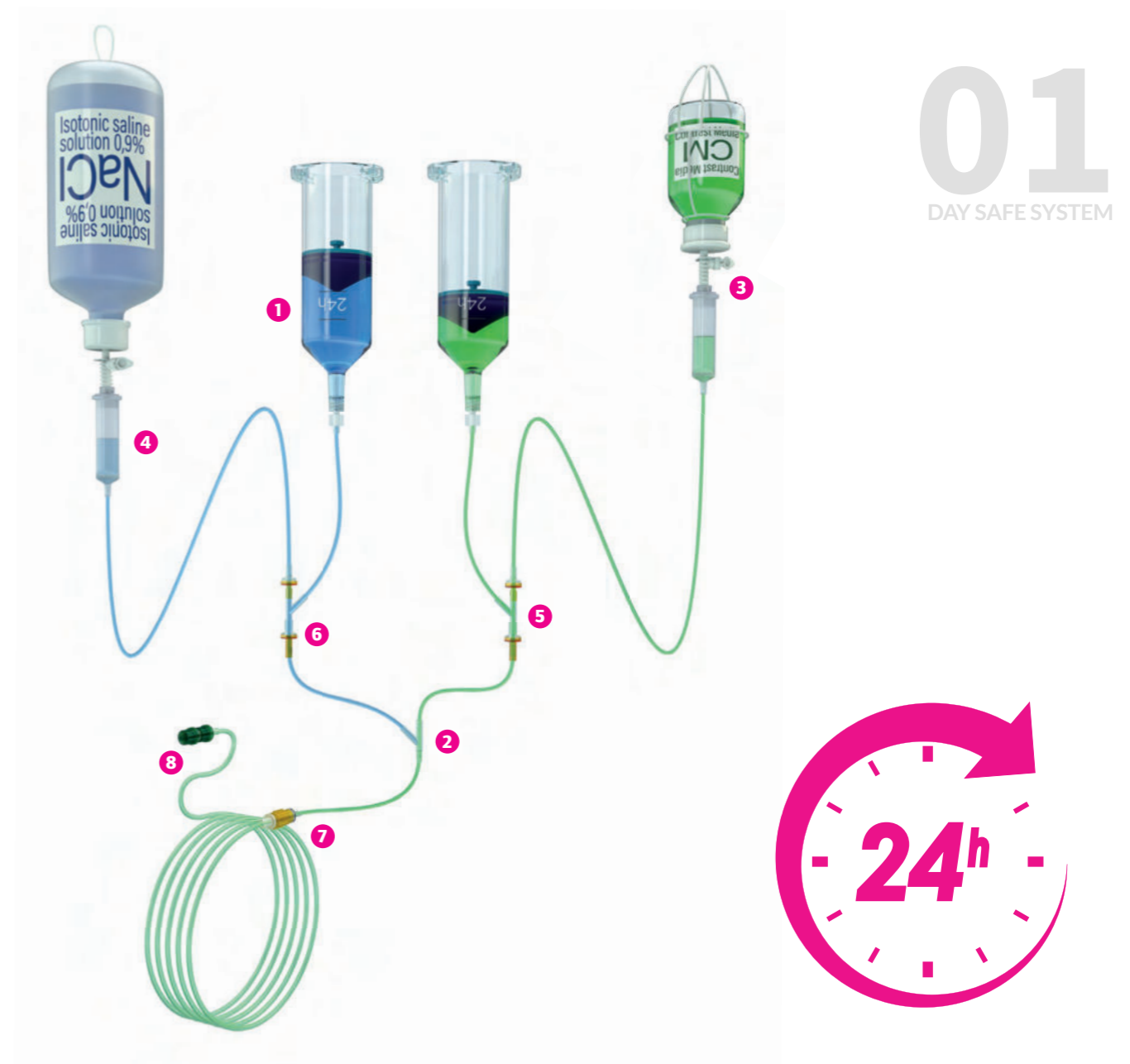
- The Day Safe Syringes and the Day Safe Filling Tube constitute a closed filling and injection system that only needs to be changed once per day, allowing multiple fillings and injections of contrast media and saline solution over the duration of 24 hours.
- We ensure that you keep control on the sterility of the multiple-use tube system. This is achieved by the closed system with wipeable, alcohol-resistant drop-stop connectors, the patient line with two check valves and rotating luer locks.
- The filling tube features inline drip chambers with filters that prevent crystallised contrast media and other particles from passing into the syringe and tube system.

### Full Transparency for Complete Control

- The Day Safe System is a completely transparent system that offers you a clear view of all components at all times.
- All components can be checked at any step of use. Direct view on the primary containers helps you to easily manage exchanges and refills, but it also allows you to completely use up the contents. In this way, you can optimise your contrast media consumption.
- The Day Safe System from MEDTRON, therefore, enables you to keep control of the preparation, venting and contrast media injection process at all times.

### Fewer Costs, Less Waste

- The extended duration of use of the tube system of up to 24h reduces daily costs. This allows you to significantly reduce your costs per patient! Compared to exclusively utilizing single-use products, you can save up to 70%.\*
- The contrast media in the container can be completely used up, which reduces your waste.



01  
DAY SAFE SYSTEM

- Day Safe Syringes (200 mL or 65 mL)** are certified to prevent airborne contamination for 24 hours
- Day Safe Filling Tube D** protects syringes and containers from retrograde contamination and allows multiple refills and injections over 24 hours
- Exchangeable Spikes** for every container reduce contamination risks
- Drip Chambers** smartly designed inline drip chambers with filters to prevent crystallised contrast media or NaCl particles from passing into syringes or the tube system
- Safe Valves** incorporated into the tube system and patient line provide optimal protection from retrograde flow
- Precisely Engineered Y Connectors** reduce swirling and air bubbles
- Wipeable Drop-Stop Connector** prevents fluid dripping at disconnection, avoids sterile liquid coming into contact with open air and can be disinfected with a sterile alcohol swab
- SURE Patient Line** with two check valves to protect patients from cross-contamination and a rotating luer lock for convenient handling

\* Comparison calculation between multiple use and single use of MEDTRON AG's products.

# Multiple Use (8h)

THE FLEXIBLE SOLUTION – ECONOMIC & UNCOMPLICATED

02  
MEHRFACH-  
VERWENDUNG (8H)

## Efficient Use for 8h

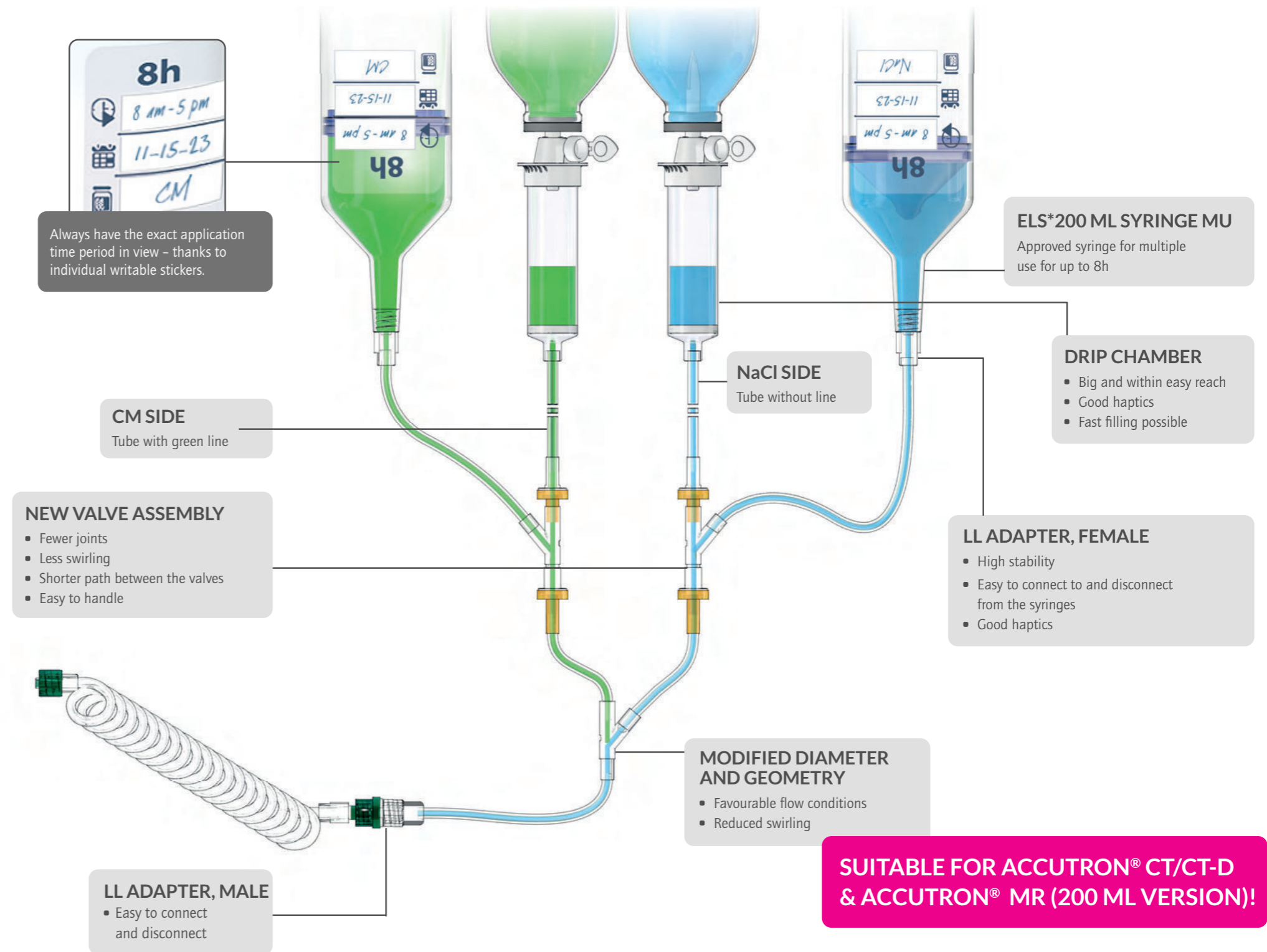
- Fast and easy set-up of disposables reduces patient turnaround time
- 8h multiple-use tube systems reduce costs for disposables
- Environmentally friendly solution, sustainably produced (latex, DEHP and pyrogen-free plastic components)

## Variable & Flexible

- 8h syringe, 8h tube system and patient line form a system
- Individual system solutions

## Safe Handling

- Overview and control of the exact application time period thanks to individual writable stickers located on the syringes
- 8h multiple-use filling system, exchangeable spikes and intelligent valves reduce the risk of contamination
- Compact and well-structured design enables simple and safe use



### APPLICATION EXAMPLE:

<b>Syringe:</b> Article no. 314626 ELS*200 mL Syringe MU	<b>Tube system:</b> Article no. 314100 MRS 222 MR Tube System	<b>Patient line:</b> Article no. 318217 Coiled Line 150 cm with 2 Valves
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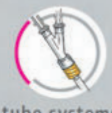
# DECLARATIONS OF COMPATIBILITY



injectors



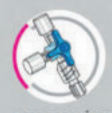
syringes



tube systems



tubes



accessories

## Kompatibilitätserklärung Declaration of Compatibility

Hiermit erklären wir, dass die folgenden von der MEDTRON AG als Hersteller im Sinne der Richtlinie 93/42 EWG hergestellten und vertriebenen  
The undersigned manufacturer hereby declare that the following products produced and distributed by MEDTRON AG as a manufacturer within the meaning of Directive 93/42 EEC

**8h-Spritze zur kurzzeitigen Anwendung ≤ 8 Stunden (8h)**  
REF 314626-100 „ELS 200ml Spritze MU“  
**8h-Syringe for short-term use ≤ 8 hours (8h)**  
REF 314626-100 „ELS 200ml Syringe MU“

in Verbindung mit den **8h-Schlauchsysteme zur kurzzeitigen Anwendung ≤ 8 Stunden (8h)** mit **gelben** Ventilen  
in conjunction with the **8h-tubesystems for short-term use ≤ 8 hours (8h)** with **yellow** valves

REF 314081-000, REF 314081-100, REF 314100-000, REF 314100-100, REF 314108-100, REF 314119-100

und den **Patientenleitungen zur einmaligen Benutzung (Einmalprodukt)** mit **grünen** Ventilen  
and the **patient lines for single use (single-use device)** with **green** valves

REF 318020-000, REF 318020-100, REF 318026-100, REF 318036-000, REF 318036-100, REF 318152-000, REF 318152-100, REF 318181-000, REF 318181-100, REF 318198-000, REF 318198-100, REF 318214-000, REF 318214-100, REF 318217-000, REF 318217-100, REF 318251-100, REF 318253-000, REF 318253-100, REF 318301-100, REF 318303-000

für einen maximalen Zeitraum von bis zu 8 Stunden validiert ist.  
is validated for a maximum period of up to 8 hours.

Die hygienische Unbedenklichkeit von der Spritze, Schlauchleitungen und Ventile wurde im Rahmen von mikrobiologischen Studien für die kurzzeitige Anwendung von ≤ 8 Stunden in einem unabhängigen akkreditierten Labor untersucht.

The hygienic safety from the syringe, tubesystem and valves was investigated as part of microbiological studies for short-term use of ≤ 8 hours in an independent accredited laboratory.

Diese Erklärung wird verantwortlich für den Hersteller abgegeben.  
This declaration is delivered under the responsibility of the manufacturer.

MEDTRON<sup>®</sup> AG

Hauptstraße 255 66128 Saarbrücken Germany

Saarbrücken, 15.02.2024

Sven Schiller   
(Head of Quality Management / Quality Assurance)

Kennnummer der CE-Kennzeichnung / CE identification number: **0482**  
DNV MEDCERT GmbH, Pilatuspool 2, 20355 Hamburg, Germany

FB 07.19.70  
Revision 01



injectors



syringes



tube systems



tubes



accessories

## Kompatibilitätserklärung Declaration of Compatibility

Hiermit erklären wir, dass die folgenden von der MEDTRON AG als Hersteller im Sinne der Richtlinie 93/42 EWG hergestellten und vertriebenen  
We hereby declare that the following products produced and distributed by MEDTRON AG as a manufacturer within the meaning of Directive 93/42 EEC

**Day Safe Spritze 200 - 21 bar, Mehrfachanwendung 24 h**  
**Day Safe Syringe 200- 21 bar, multiple use 24 h**  
REF 312426-100  
und / oder  
and / or

**Day Safe Spritze 65 - 21 bar, Mehrfachanwendung 24 h**  
**Day Safe Syringe 65- 21 bar, multiple use 24 h**  
REF 312465-100  
in Verbindung mit dem  
in conjunction with the

**Day Safe Füllschlauch - D 21 bar, Mehrfachanwendung 24 h**  
**Day Safe Filling tube-D 21 bar, multiple use 24h**  
REF 312400-100  
und dem  
and the

**Spike mit Belüftung MU zur Mehrfachentnahme aus einem Vorratsbehälter**  
**Vented spike MU for multiple withdrawal from a multi-dose vial**  
REF 314095-100  
und / oder dem  
and / or the

**Minispike, grün MU zur Mehrfachentnahme aus einem Vorratsbehälter**  
**Minispike green MU for multiple withdrawal from a multi-dose vial**  
REF 319099-100, REF 319099-901  
und dem  
and the

**SURE Patientenschlauch 150 - SURE Patientline 150**  
**SURE Patientenschlauch SP 150 - Sure Patient line SP 150**  
**SURE Patientenschlauch 200 - Sure Patient line 200**  
**SURE Patientenschlauch SP 200 - Sure Patient line SP 200**  
**SURE Patientenschlauch 250 - Sure Patient line 250**  
**SURE Patientenschlauch SP 250 - Sure Patient line SP 250**

(mit zwei grünen Rückschlagventilen), Einmalprodukt für die einmalige Verwendung an einem einzigen Patienten  
(with two green check valves) for the single use on a single patient  
REF 318415-100, REF 318416-100, REF 318420-100, REF 318421-100, REF 318425-100, REF 318426-100

für einen maximalen Zeitraum von bis zu 24 Stunden validiert sind.  
are validated for a maximum period of up to 24 hours.

Die hygienische Unbedenklichkeit der Verbrauchsmaterialien wurde im Rahmen von mikrobiologischen Studien für die Anwendung von ≤ 24 Stunden in einem unabhängigen akkreditierten Labor untersucht.

The hygienic safety of the consumables was investigated as part of microbiological studies for short-term use of ≤ 24 hours in an independent accredited laboratory.

Diese Erklärung wird verantwortlich für den Hersteller abgegeben.  
This declaration is delivered under the responsibility of the manufacturer.

MEDTRON<sup>®</sup> AG

Hauptstraße 255 66128 Saarbrücken Germany

Saarbrücken, 15.02.2024

Sven Schiller   
(Head of Quality Management / Quality Assurance)

Kennnummer der CE-Kennzeichnung / CE identification number: **0482**  
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FB 07.19.71  
Revision 03

# SERVICE

Reliable service is known to improve customer satisfaction.

And since satisfied customers are more than important, we at MEDTRON make every effort to provide our customers with a 100% operative injector. To guarantee this, we at MEDTRON give our customers in Germany the possibility of choosing between a **maintenance contract** and **maintenance on a case-by-case basis**.

Customers who prefer annual maintenance can agree upon the cost-effective **maintenance contract**. This has a minimum term of 2 years, but it can be cancelled within a period of 3 months to the end of each contractual year. This maintenance contract involves renewing all defective components free of charge and restoring the device to an as-new condition. In addition, the warranty is extended by a further year.

Alternatively, customers can have their injectors maintained as needed on a case-by-case basis.

Our range of services for customers in Germany:

	<b>Guarantee <sup>1)</sup></b>	<b>Maintenance contract</b>	<b>Case-by-Case maintenance</b>	<b>Service order (e.g. repair)</b>
Regular maintenance (1 x year)	-	+	-	-
Case-by-case maintenance	-	-	+	-
Safety inspections (STK as per Sec. 6 Medical Devices Operator Ordinance [MPBetreibV]), as part of annual maintenance	-	+	+	-
Working time	+	+	+	○
Travel time	+	+	+	○
Travel costs	+	+	+	○
Spare and wear parts	-	+	○	○
Replacement device (as needed)	+	+	○	○
Service or maintenance report	+	+	+	+

1) = from purchase contract (12 months)    + = included in price    ○ = on a time and material basis    - = not applicable

MEDTRON's injectors are highly reliable and designed for a long life. If, nevertheless, any technical problems arise, MEDTRON's friendly service team will provide quick and competent assistance.

"The customer usually receives a replacement device within a day or a service technician will promptly pay an on-site call to prevent disruption to patient care." Edwin Heinz, Senior Specialist International Service. For our customers located outside of Germany, our skilled and trained service partners offer reliable and quick maintenance and service.

**RELIABLE - QUICK - EFFICIENT**

# CONTACT



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